

Integrated Portable Speed Gun System



Operation Manual

December 2010



Integrated Portable Speed Gun System



CAUTION!
RISK OF ELECTRICAL SHOCK!
DO NOT OPEN!



TO PREVENT ELECTRIC SHOCK, DO NOT REMOVE THE COVER. DO NOT EXPOSE THE EQUIPMENT TO RAIN OR MOISTURE. NO USER SERVICEABLE PARTS ARE INSIDE. REFER SERVICING TO QUALIFIED PERSONNEL.

WARNING!

THIS EQUIPMENT GENERATES, USES, AND CAN RADIATE RADIO FREQUENCY ENERGY AND IF NOT INSTALLED AND USED IN ACCORDANCE WITH THE INSTRUCTION MANUAL MAY CAUSE INTERFERENCE TO RADIO COMMUNICATIONS. IT HAS BEEN TESTED AND FOUND TO COMPLY WITH THE LIMITS FOR A CLASS A COMPUTING DEVICE PURSUANT TO SUBPART J OF PART 15 OF FCC RULES, WHICH ARE DESIGNED TO PROVIDE REASONABLE PROTECTION AGAINST SUCH INTERFERENCE WHEN OPERATED IN A COMMERCIAL ENVIRONMENT. OPERATION OF THIS EQUIPMENT IN A RESIDENTIAL AREA IS LIKELY TO CAUSE INTERFERENCE IN WHICH CASE THE USER AT HIS/HER OWN EXPENSE WILL BE REQUIRED TO TAKE WHATEVER MEASURES MAY BE REQUIRED TO CORRECT THE INTERFERENCE.

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1. INTRODUCTION

The Integrated Portable Speed Gun System allows characters to be inserted into the camera video via an RS-232 source. This allows Radar or Laser Speed Guns, GPS or Alcohol Meters or any RS-232 communicating device to display alpha-numerics in the video picture. Simple side panel push-buttons allow the user to simply program all functions and features of the Integrated Portable Speed Gun System. This includes character position, gray scale, aiming cross hair and a wide variety text processing function including exceptions and alarming features.

The Exception Processor of the Integrated Portable Speed Gun System provides the intelligence to monitor the data stream and alarm or notify is the speed higher than the legal limit or if any data has changed along with triggering the DVR to record images.

Simple programming pushbuttons for DVR setup, recording or playback are also side mounted. You can record JPEG snapshots or live MPEG4 video.

The built in 30X Day/Night Camera with rear panel controls give a clear view of speeders up to 100m away.

Complete Integrated Portable Speed Gun System settings can be saved on the laptop and uploaded to the Integrated Portable Speed Gun System at will. This is mainly used for dealer maintenance or for single station user programming.

Firmware is also downloadable in the field with our Firmware Utility so new updates and features can be easily passed to customers without changing EPROMs or opening the unit.

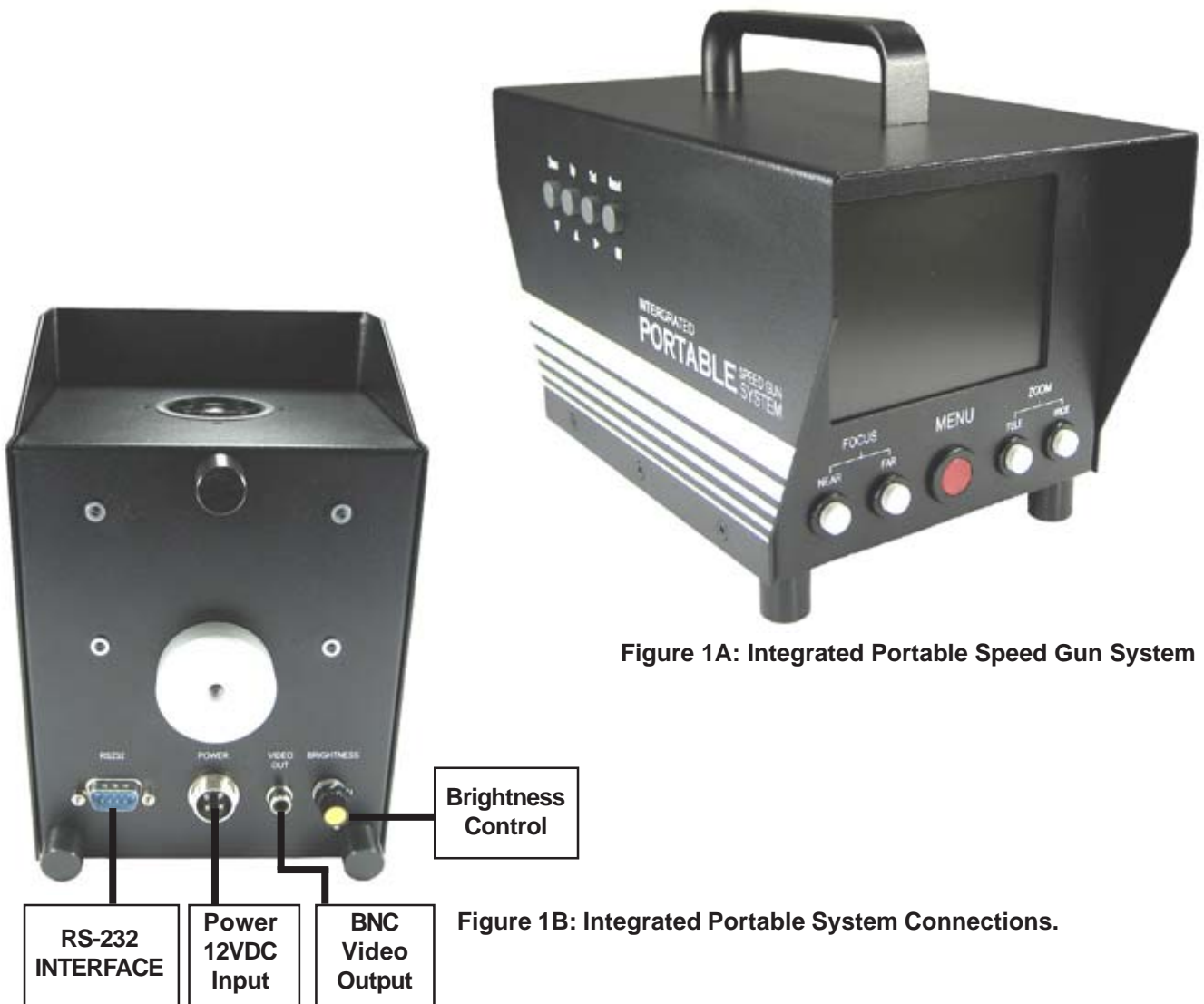


Figure 1A: Integrated Portable Speed Gun System

Figure 1B: Integrated Portable System Connections.

NOTE : Refer to Appendix C Typical Speed Gun Operation page 55 for Quick Operation Guide.

2. FEATURES & SPECIFICATIONS

SERIAL INPUT AND OUTPUT

The Integrated System accepts serial data via the DB-9 male connector located on the bottom of Integrated System. This connector is similar to "AT" type computer RS232 serial port. Table 1 shows the standard pin out for Integrated System male connector.

PIN #	Label	Direction	Function
1	DATA 0	To Integrated System	Data From Stalker ATR (TTL-Level)
2	Recive Data (RS-232)	To Integrated System	Data From Radar Gun, Laser Gun, etc
3	Transmit Data (RS-232)	From Integrated System	Data To Radar Gun, Laser Gun, etc
4	-	-	-
5	Ground	-----	Signal / Power Ground
6	-	-	-
7	-	-	-
8	-	-	-
9	Alarm Out 2	From Integrated System	Open Collector Transistor

Table 1: Pin-Out of the DB-9 male Connector on the Integrated Portable System.

2.1 FEATURES

VSI-Pro INTERFACE

-All popular Speed Radar Units, Decatur, MPH, Kustom, Stalker, Targetron, Tribar, Municipal
-All popular Speed Laser Units, LTI, Laser Atlanta, Stalker, Kustom
-Intoxilyzer and Alcolmeter Alcohol Meters
-All popular GPS Data Formats NEMA0183, AIR, NORTHM2
-RS232C AND TTL Interface
-Serial output of all data or exceptions to printers, computers, modems and DVRs
-Cross Hair Programmable for vehicle targeting
-Universal time/date format
-100 lines exception history buffer
-2 Hard alarms output - 1 for the DVR Record Internal and the 2nd for optional user functions
-16 triggered text associated with 16 alarms
-Large data buffers for input/output to accommodate newer, faster registers
-Powerful data filtering algorithms
-Easy on-screen menu-driven setup and programming
-Auto baud rate detection
-24 field programmable exceptions with numeric range
-On-screen flagging of exceptions with asterisk or reverse text
-Programmable alarm outputs.
-Programmable delayed screen blanking
-Choice of 1 to 11 lines displayed on-screen
-On-screen titler up to 40 characters
-Gray scale and border selection from front panel
-Built-in test mode
-Upload/download programming to another Integrated System or PC.
-Data captured either to the memory or to the serial port
-Local Firmware Downloadable



2.2 SPECIFICATIONS

RECORDING

.....External SD Card up to 2GB recording Media
.....Selectable Video/Photo Recording
.....640 x 480 Pixel for JPEG in Photo Recording standard JPEG
.....320 x 240 Pixel MJPEG Compression for AVI @10fps
.....Photo 2100 pictures @ Capacity of SD Card is 2GB
.....Video 660 minutes @ Capacity of SD Card is 2GB

CAMERA

.....Signal systems	NTSC/PAL
.....Imager	1/4" Sony CCD
.....Horizontal Resolution	480 TVL
.....S/N Ration	More than 52dB
.....Min. Illumination	Day 0.5 Lux Night 0.05 Lux
.....Auto Electronics Shutter	1/60 to 1/100,000 NTSC 1/50 to 1/100,000 PAL
.....Optical Lens	30X
.....White Balance	Auto/ Lamp / Outdoor / Indoor
.....Iris	Auto/ Fix / Night / Move
.....Mirror	On/Off
.....Auto Gain Control	On/Off
.....Programming Control	Push Switches
.....Auto Color / B/W	Day-Color, Night-Auto Color / B/W
.....Focusing Systems	Auto / Manual / Key Control
.....Video Output	1.0V p-p 75 Ohm Terminated

DISPLAY

.....TFT LCD Screen Size	4.05 Inches (Diagonal)
.....Display Mode	Normal White
.....Input signal	1.0Vpp Composit Video PAL/NTSC Auto detect
.....White Chromaticity	X = 0.30, Y = 0.35 at view angle 0
.....Active Display Area	82.1mm (W) x 61.8mm (H)
.....Display Resolution	480 (W) x 234 (H)
.....Dot Pitch	0.171mm (W) x 0.264mm (H)
.....Color Configuration	RGB Delta
.....Brightness(Luminance)	250 nit
.....Backlight	CCFL x 1
.....Front Surface	Anti-Glare hard coating
.....Brightness	300 cd/m2 typical (250 cd/m2 min.)
.....Contrast Ratio	150 typical (100 min.) (At optimized viewing angle.)
.....Viewing Angle	Left/Right +/- 45 Deg. (H) (at CR >10) Top/Bot +/- 10/30 Deg. (V) (at CR>10)
.....Humidity	10% RH-90%RH
.....Vibration (with Carton)	5-200 Hz Sweep Frequency
.....Drop (with Carton)	60cm at 1 corner, 3 edges, 6 surface

POWER INPUT

12VDC +/- 10% @ 1.25A on 4P DIN Connector to DC Car Cord Cigarette Lighter Type

ALARM OUTPUT

DB9 Pin# 9 Open Collector 12VDC @ 20mA

VIDEO OUTPUT

1Vpp 75 Ohm BNC Connector

BRIGHTNESS CONTROL

Potentiometer

DIMENSIONS

220mm(L) x 133mm(W) x 166mm (H)

WEIGHT

2.15 kg or 4.76 lbs



3. USER FRONT PANEL CONTROLS

3. USER FRONT PANEL CONTROLS

The Integrated System is programmed by pressing and releasing specific combinations of the four front panel push button. Via these four simple buttons, all of the powerful programming features of the Text Inserter are available.



Figure 2: Four Front Panel Push Buttons of Integrated System

3.1 FRONT PANEL CONTROLS

The front panel controls are provided to allow simple changing of the display's vertical and horizontal position and the gray scale or border. This eliminates the need of the user to enter the main menu and inadvertently change important programming setups.

Changing the Gray Scale

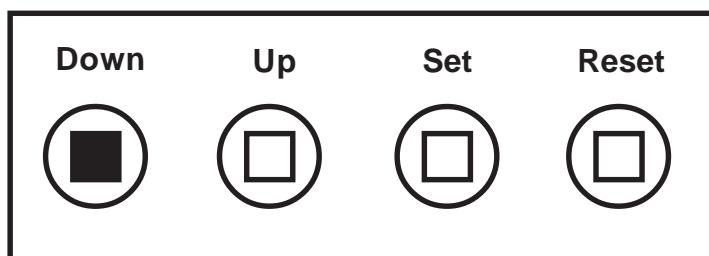


Figure 3: Four Front Panel Push Buttons of Integrated System (Down)

1. Press and hold the "Down" button.
2. Press and release the "Reset" button.
3. Release the "Down" button.
4. Press "Down" or "Up" to select the Gray Scale.
5. When choice is made, press and release the "Set" button.

Changing the Horizontal Position

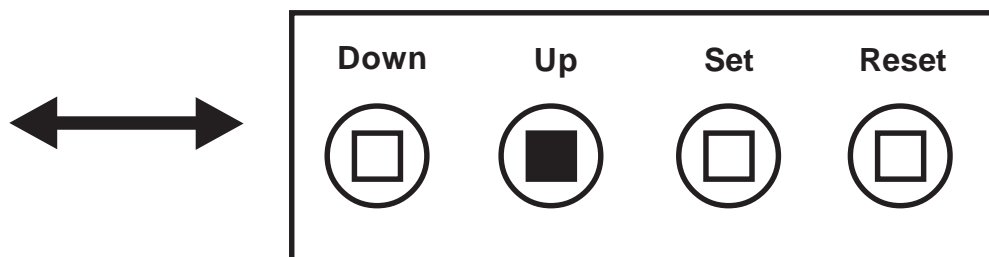


Figure 4: Four Front Pannel Push Buttons of Integrated System (Up)

1. Press and hold the “Up” button.
2. Press and release the “Reset” button.
3. Release the “Up” button.
4. Press “Down” or “Up” to move the text block.
5. When the choice is made, press and release the “Set” button.

Changing the Vertical Position

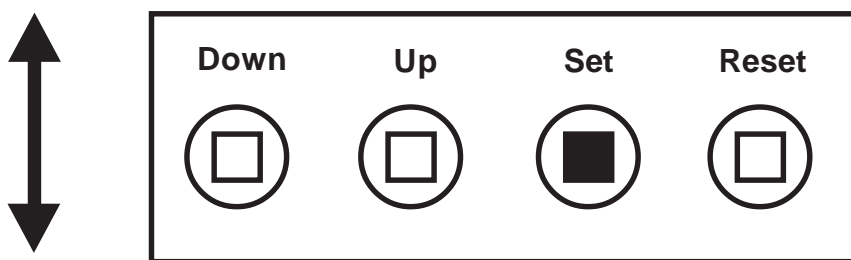


Figure 5: Four Front Pannel Push Buttons of Integrated System (Set)

1. Press and hold the “Set” button.
2. Press and release the “Reset” button.
3. Release the “Set” button.
4. Press “Down” or “Up” to move the text block.
5. When the choice is made, press and release the “Set” button.

4. PROGRAMMING

4.1 GETTING STARTED

To access the main-menu of the Integrated System, simultaneously hold down the “Down” & “Up” buttons and press and release the “Reset” button and then release the “Down” & “Up” buttons. This will take you to the main programming menu. To navigate through this menu, simply use the “Down” and “Up” buttons to position the cursor in front of the desired function, then press “Set” to access that function.

If you have difficulty entering the main-menu, try the following procedure exactly. With your left thumb, lightly press and hold in the two buttons to the left (Up & Down). While holding down these buttons, press and release the “Reset” button with your right thumb. Then release the other buttons.

NOTE

If a sub-menu has an “EXIT” selection, always go there and press “Set”. Pressing “Reset” at the main-menu exits you from the programming mode.

4.2 MAIN PROGRAMMING MENU

Following is a detailed description of the menu selections and the programming capabilities of the Integrated System.

- ☒ **DEVICE SELECT**
- ☐ **SCREEN SETUP**
- ☐ **TEXT DISPLAY**
- ☐ **COMMUNICATION**
- ☐ **EXCEPTION REPORT**
- ☐ **ALARM OUTPUTS**
- ☐ **TEST/DEMO MODE**
- ☐ **DOWNLOAD/UPLOAD SETUP**
- ☐ **HELP**

Figure 6: Integrated System Main-Menu

4.3 DEVICE SELECT

To select a specific device, press the “Up” or “Down” button to move the cursor to “DEVICE SELECT” and press “Set”. The DEVICE SELECT menu will bring up a sub-menu consisting of devices shown in Figure 10. You can go to the next or previous page by placing the cursor in front of “NEXT” or “PREVIOUS” and then pressing “Set”. To select the desired device, press the “Up” or “Down” button to move the cursor to that device and press “Set”. After selecting the device, exit out of the DEVICE SELECT menu by pressing the “Up” or “Down” button to move the cursor to “EXIT” and then pressing “Set”. In the main-menu, press “Reset” to activate the programming for that specific device. DEVICE SELECT automatically formats the Integrated System to match your device’s communication settings. However, if you need to change these settings, you can do so through the COMMUNICATION menu described later in this manual.

NOTE

Whenever you select a device in this menu, certain programming features are reset to the default settings. Always set the device selection first, get the data on-screen, then proceed with additional programming.

DEVICE SELECT

Press the “Up” or “Down” button to move the cursor to “DEVICE SELECT” and press “Set”. The DEVICE SELECT sub-menu will appear:

- ☒ **GENERIC**
- ☐ **GPS INTERFACE**
- ☐ **RADAR GUN**
- ☐ **LASER GUN**
- ☐ **ALCOHOL METER**
- ☐ **CARD READER**
- ☐ **EXIT**

Figure 7: DEVICE SELECT Sub-Menu

Press the “Up” or “Down” button to move the cursor to “GENERIC” and press “Set” to select. The Generic mode has no filter or driver but simply displays all the printable ASCII characters sent to the Integrated System. If you are testing a new device use this setting first to verify data and then select the appropriate driver.

GPS INTERFACE

Press the “Up” or “Down” button to move the cursor to “GPS INTERFACE” and press “Set”. The GPS INTERFACE sub-menu will appear:

- | | |
|--|-----------------|
| <input checked="" type="radio"/> FORMAT | NEMA0183 |
| <input type="radio"/> TIME | ON |
| <input type="radio"/> DATE | ON |
| <input type="radio"/> SPEED | KNOT |
| <input type="radio"/> DIRECTION | ON |
| <input type="radio"/> EXIT | |

Figure 8: GPS INTERFACE Sub-Menu

FORMAT

Choices: *NEMA0183, AIR, NORTHM2*

Chooses one of the three available formats. Press the “Up” or “Down” button to move the cursor to “FORMAT” and press “Set”. The cursor will start flashing. Press the “Up” or “Down” button to toggle between formats and press “Set” when the desired format is displayed.

TIME / DATE / DIRECTION

Choices: *ON, OFF*

Turns the Time/Date/Direction on or off. Press the “Up” or “Down” button to move the cursor to “TIME” or “DATE” or “DIRECTION” and press “Set”. The cursor will start flashing. Press the “Up” or “Down” button to toggle between “ON” or “OFF” and press “Set” when the desired value is displayed.

SPEED

Choices: *KNOT, KPH, MPH*

Chooses one of the three available unit of speed. Press the “Up” or “Down” button to move the cursor to “SPEED” and press “Set”. The cursor will start flashing. Press the “Up” or “Down” button to toggle between unit of speed and press “Set” when the desired unit of speed is displayed.

RADAR GUN

Press the “Up” or “Down” button to move the cursor to “RADAR GUN” and press “Set”. The following menu options will appear.

- ☒ **DECATUR**
- ☐ **KUSTOM**
- ☐ **MPH PYTHON**
- ☐ **MPH Z35**
- ☐ **MUNICIPAL TS-4**
- ☐ **RG2RS**
- ☐ **-----NEXT PAGE**
- ☐ **EXIT**

Figure 9: Radar Gun Sub-Menu Page 1

- ☒ **-----PREVIOUS PAGE**
- ☐ **STALKER DUAL SL**
- ☐ **STALKER SPORT**
- ☐ **STALKER ATR**
- ☐ **STALKER II SDR**
- ☐ **TARGETRON RAPID FIRE**
- ☐ **TRIBAR MUNI QUIP**
- ☐ **EXIT**

Figure 10: Radar Gun Sub-Menu Page 2

DECATUR

Press the “Up” or “Down” button to move the cursor to “DECATUR” and press “Set”. The DECATUR menu will appear:

- ☒ **GENESYS I/II**
- ☐ **HUNTER**

Figure 11: DECATUR Sub-Menu

Note that when selecting the Hunter model this requires a special TTL Mod adapter for inside the Integrated System. Please contact the factory for further information.

Press the “Up” or “Down” button to move the cursor to “GENESYS I/II” or “HUNTER” and press “Set” to select and back to previous menu.

4. PROGRAMMING

KUSTOM

Press the “Up” or “Down” button to move the cursor to “KUSTOM” and press “Set”. The KUSTOM menu will appear:



Figure 12: KUSTOM Sub-Menu

Note that Kustom Signals has many versions of software for RS-232 output of their radar guns. Particularly they encode the data so the customer can not use with 3rd party video systems. Contact Kustom to obtain the proper generic software version for your radar gun.

Press the “Up” or “Down” button to move the cursor to “GOLDEN EAGLE” or “KUSTOM ICFT” and press “Set” to select and back to previous menu.

MPH PYTHON

Press the “Up” or “Down” button to move the cursor to “MPH PYTHON” and press “Set”. No menu will appear and merely sets the Integrated System to support this unit.

MPH Z35

Press the “Up” or “Down” button to move the cursor to “MPH Z35” and press “Set”. No menu will appear and merely sets the Integrated System to support this unit.

MUNICIPAL TS-4

Press the “Up” or “Down” button to move the cursor to “MUNICIPAL TS-4” and press “Set”. No menu will appear and merely sets the Integrated System to support this unit.

RG2RS

Press the “Up” or “Down” button to move the cursor to “RG2RS” and press “Set”. No menu will appear and merely sets the Integrated System to support this device.

The RG2RS is an AVE additional adapter that allows interfacing to older radar guns via remote display and other special protocols prior to the common RS-232.

STALKER II SDR

Press the “Up” or “Down” button to move the cursor to “STALKER II SDR” and press “Set”. No menu will appear and merely sets the Integrated System to support this unit.

STALKER DUAL SL

Press the “Up” or “Down” button to move the cursor to “STALKER DUAL SL” and press “Set”. The STALKER DUAL SL menu will appear:



Figure 13: STALKER DUAL SL Sub-Menu

Press the “Up” or “Down” button to move the cursor to “MODE A” or “MODE B” and press “Set” to select and then press the “Up” or “Down” button to move the cursor to “EXIT” and press “Set” then back to previous menu.

STALKER SPORT

Press the “Up” or “Down” button to move the cursor to “STALKER SPORT” and press “Set”. The STALKER SPORT menu will appear:

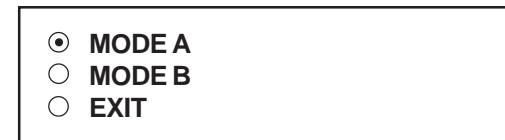


Figure 14: STALKER SPORT Sub-Menu

Press the “Up” or “Down” button to move the cursor to “MODE A” or “MODE B” and press “Set” to select and then press the “Up” or “Down” button to move the cursor to “EXIT” and press “Set” then back to previous menu.

STALKER ATR

Press the “Up” or “Down” button to move the cursor to “STALKER ATR” and press “Set”. No menu will appear and merely sets the Integrated System to support this unit.

The STALKER ATR either requires the RG2RS adapter or is supported by the VSI-Pro Mini RG which is only available in PCB form or is an integral part of the Portable Radar Set.

TARGETRON RAPID FIRE

Press the “Up” or “Down” button to move the cursor to “TARGETRON RAPID FIRE” and press “Set”. No menu will appear and merely sets the Integrated System to support this unit.

TRIBAR MUNI QUIP

Press the “Up” or “Down” button to move the cursor to “TRIBAR MUNI QUIP” and press “Set”. No menu will appear and merely sets the Integrated System to support this unit.

LASER GUN

Press the “Up” or “Down” button to move the cursor to “LASER GUN” and press “Set”. The LASER GUN sub-menu will appear:

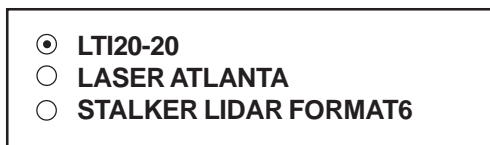


Figure 15: LASER GUN Sub-Menu

LTI20-20

Press the “Up” or “Down” button to move the cursor to “LTI20-20” and press “Set”. No menu will appear and merely sets the Integrated System to support this unit and back to previous menu.

LASER ATLANTA

Press the “Up” or “Down” button to move the cursor to “LASER ATLANTA” and press “Set”. No menu will appear and merely sets the Integrated System to support this unit and back to previous menu.

STALKER LIDAR FORMAT6

Press the “Up” or “Down” button to move the cursor to “STALKER LIDAR FORMAT6” and press “Set”. No menu will appear and merely sets the Integrated System to support this unit and back to previous menu.

ALCOHOL METER

Press the “Up” or “Down” button to move the cursor to “ALCOHOL METER” and press “Set”. The ALCOHOL METER menu will appear:



Figure 16: ALCOHOL METER Sub-Menu

ALCOLMETER SD-400P

Press the “Up” or “Down” button to move the cursor to “ALCOLMETER SD-400P” and press “Set”. No menu will appear and merely sets the Integrated System to support this unit and back to previous menu.

ALCOLMETER LION SD-400

Press the “Up” or “Down” button to move the cursor to “ALCOLMETER LION SD-400” and press “Set”. No menu will appear and merely sets the Integrated System to support this unit and back to previous menu.

INTOXILYZER 400

Press the “Up” or “Down” button to move the cursor to “INTOXILYZER” and press “Set”. No menu will appear and merely sets the Integrated System to support this unit and back to previous menu.

CARD READER

Press the “Up” or “Down” button to move the cursor to “CARD READER” and press “Set”. No menu will appear and merely sets the Integrated System to support this unit.

4. PROGRAMMING

4.4 SCREEN SETUP

Press the “Up” or “Down” button to move the cursor to “SCREEN SETUP” and press “Set”. The following menu will appear:

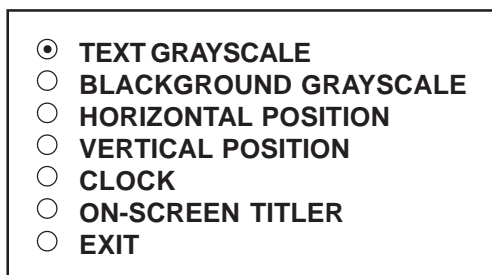


Figure 17: SCREEN SETUP Sub-Menu

TEXT GRAYSCALE

To change the display border and/or the grayscale of the text on screen, press the “Up” or “Down” button to move the cursor to “TEXT GRAYSCALE” and press “Set”. Cycle through the selections by pressing the “Up” or “Down” buttons. There are 10 settings to choose from. Make your selection and press “Set” to return to the previous menu.

BACKGROUND GRAYSCALE

To change the display border and/or the grayscale of the text on screen, press the “Up” or “Down” button to move the cursor to “BACKGROUND GRAY SCALE” and press “Set”. Cycle through the selections by pressing the “Up” or “Down” buttons. There are 10 settings to choose from. Make your selection and press “Set” to return to the previous menu.

HORIZONTAL POSITION

To change the horizontal position of the inserted text on-screen, press the “Up” or “Down” button to move the cursor to “HORIZONTAL POSITON” and press “Set”. Press the “Up” or “Down” buttons to move the text to the desired horizontal position.

VERTICAL POSITION

To change the vertical position of the inserted text on-screen, press the “Up” or “Down” button to move the cursor to “VERTICAL POSITION” and press “Set”. Press the “Up” or “Down” buttons to move the text to the desired vertical position.

NOTE

Upon powering up for the first time or when the battery becomes depleted, the on-screen Time / Date display may be incorrect or have unreadable characters. If this is the case, enter the clock menu and “Reset Time / Date”. The Time / Date will then show readable characters and be unaffected by a Master Reset.

CLOCK

To program the clock's functions, press the “Up” or “Down” button to move the cursor to “CLOCK” and press “Set”. The following menu will appear:

<input checked="" type="radio"/> T/D DISPLAY	ON
<input type="radio"/> TIME FORMAT	12 HOUR
<input type="radio"/> DATE FORMAT	MM/DD/YY
<input type="radio"/> DAYLIGHT SAVING	DISABLED
<input type="radio"/> SET TIME / DATE	
<input type="radio"/> RESET TIME / DATE	
<input type="radio"/> T/D LOCKING	ON
<input type="radio"/> EXIT	

Figure 18: CLOCK Sub-Menu

T/D DISPLAY turns the time/date display on or off. Press the “Up” or “Down” button to move the cursor to “T/D DISPLAY” and press “Set”. The cursor will start flashing. Press the “Up” or “Down” button to toggle between “ON” or “OFF” and press “Set” when the desired value is displayed.

TIME DISPLAY selects either 12-hour AM/PM or 24-hour Military Time format with AM/PM. Press the “Up” or “Down” button to move the cursor to “TIME DISPLAY” and press “Set”. The cursor will start flashing. Press the “Up” or “Down” button to toggle between time formats and press “Set” when the desired format is displayed.

DATE FORMAT chooses one of the three available formats. Press the “Up” or “Down” button to move the cursor to “DATE FORMAT” and press “Set”. The cursor will start flashing. Press the “Up” or “Down” button to toggle between date formats and press “Set” when the desired format is displayed.

DAYLIGHT SAVING selects, for example, USA, Canada, UK, Australia, Tasmania or is disabled. Press the “Up” or “Down” button to move the cursor to “DAYLIGHT SAVING” and press “Set”. The cursor will start flashing. Press the “Up” or “Down” button to toggle between values and press “Set” when the desired value is displayed.

SET TIME/DATE sets the clock manually. Press the “Up” or “Down” button to move the cursor to “SET TIME/DATE” and press “Set”. The time/date will appear and the cursor will start flashing. Press the “Up” and “Down” button to change the value and press “Set” when the desired value is displayed. The value is selected and the cursor will advance to the next position. When the desired time/date is displayed, press the “Up” and “Down” buttons simultaneously to enter the time/date into memory and return to the previous menu.

RESET TIME/DATE resets the clock to the default value. Press the “Up” or “Down” button to move the cursor to “RESET TIME/DATE” and press “Set” to reset the time/date.

T/D LOCKING turns the time/date locking on or off. If the time/date locking is turned on, make sure that the time and date format selected is the same as the ATM time and date format. Press the “Up” or “Down” button to move the cursor to “T/D LOCKING” and press “Set”. The cursor will start flashing. Press the “Up” or “Down” button to toggle between “ON” or “OFF” and press “Set” when the desired value is displayed.

If the T/D LOCKING is turned on, make sure that the time format selected is the same as the register’s time/date format. If the T/D LOCKING is turned on, the Integrated System will monitor the incoming data string. If it finds a valid time and date in one or two consecutive lines, it will set the clock to whatever time/date it finds. A valid time has the following formats:

HH:MM, HH:MM:ss
 HH:MM AM, HH:mm:ss AM
 HH:MM PM, HH:MM:ss PM

where hh is a number between 0 and 12 (24 if either AM or PM not present)

A valid date has the same format as for date display and has either “/” or “-” as a separator.

ON-SCREEN TITLER

Press the “Up” or “Down” button to move the cursor to “ON-SCREEN TITLER” and press “Set”. The following menu will appear:

4. PROGRAMMING

Figure 19: ON-SCREEN TITLER Sub-Menu

<input checked="" type="radio"/>	TITLER	OFF
<input type="radio"/>	TITLE	
<input type="radio"/>	EXIT	

TITLER

To change the status of the on-screen titler, press the “Up” or “Down” button to move the cursor to “TITLER” and press “Set”. The cursor will start flashing. Select either “ON” or “OFF” by pressing the “Up” or “Down” button. After making a selection, press “Set”. This will return the cursor to the non-flashing mode. Now select “EXIT” to return to the previous menu.

TITLE

The Integrated System gives you the option of a 40-character display for easy unit identification in addition to the actual unit transaction data.

To create a title, press the “Up” or “Down” button to move the cursor to “TITLE” and press “Set”. You will see a row of 40 boxes and the first box will be flashing.

To change the character in the first position, press the “Up” or “Down” buttons to cycle through the alpha-numeric selections from the following list of available characters.

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz =.+-*/9876543210

The solid white box is used for a blank space. Make your selection and press “Set”. This will advance to the next block, repeat until you have entered the desired title. When finished, simultaneously press and release the “Down” & “Up” buttons to enter your title into memory. The white boxes will disappear and your title will be displayed as it will appear on-screen. Press the “Up” or “Down” button to move the cursor to “EXIT” and press “Set” to return to the previous menu.

NOTE

Remember, enabling the TITLE will limit text insertions to 10 lines maximum.

EXIT

Press the “Up” or “Down” button to move the cursor to “EXIT” and press “Set” to return to the previous menu.

4.5 TEXT DISPLAY

This menu will give you more control over the actual text block formatting and its appearance on the screen. To access the menu, press the “Up” or “Down” button to move the cursor to “TEXT DISPLAY” and press “Set”. The following sub-menu will appear:

Figure 20: Text Display Sub-Menu

<input checked="" type="radio"/>	SCREEN BLANK	20
<input type="radio"/>	DISPLAY LINES	10
<input type="radio"/>	DISPLAY FORMAT	TOP
<input type="radio"/>	LINE COMPRESS	OFF
<input type="radio"/>	SPACE COMPRESS	OFF
<input type="radio"/>	LEFT JUSTIFIED	OFF
<input type="radio"/>	SCROLL DELAY	OFF
<input type="radio"/>	DISPLAY	ON
<input type="radio"/>	CROSS HAIR	
<input type="radio"/>	EXIT	

SCREEN BLANK

Choices: NONE, 6, 12, 20, 30, 60, 120, 180, 300

This is the amount of time that the Integrated System text display will remain on-screen after data sent before blanking itself off (not the video picture, just the radar data) until the next transaction.


To change the SCREEN BLANK setting, press the "Up" or "Down" button to move the cursor to "SCREEN BLANK" and press "SET". The cursor will begin flashing. Press the "Up" or "Down" buttons to cycle through the selections. Press "Set" when the desired time is displayed. The cursor will stop flashing and you may continue programming.


NOTE  *Choosing "NONE" means No Blanking. The Integrated System will display the last transaction until a new transaction is performed.*

DISPLAY LINES

You have the choice of how many lines of text to display on-screen for register transactions. The choices are up to 11 lines.

To change the DISPLAY LINES setting, press the "Up" or "Down" button to move the cursor to "DISPLAY LINES" and press "Set". The cursor will begin flashing. Press the "Up" or "Down" buttons to cycle through the selections. Press "Set" when the desired number is displayed. The cursor will stop flashing and you may continue programming.

NOTE  *All register transaction data will scroll up regardless of the number of lines you choose to display on-screen and the more lines you display on-screen, the greater the amount of time that the transaction data will be recorded. However, some applications may limit the number of lines and the size of the on-screen display.*

NOTE  *If you are using an on-screen title, it will occupy Line 1, leaving 10 lines for the text insertion. If you enable the on-screen Time/Date then this takes one additional line also.*

DISPLAY FORMAT

If "TOP" is selected which is the default, the data scrolls from the top most line down to the selected number of lines displayed. "T/D" and/or "TITLE" is displayed at the top of the screen. If "BOTTOM" is selected then the data scrolls up from the bottom most line to the top of the screen and "T/D" and/or "TITLE" is displayed at the bottom of the screen.

LINE COMPRESS

The Integrated System automatically compresses the spaces in a line first as it reaches 40 characters. With LINE COMPRESS "ON", the Integrated System will additionally remove multiple spaces and then vowels from the text to further compress the display as necessary.

To make this selection, position the arrow in front of "LINE COMPRESS" and press and release "Set". The arrow will start flashing. Cycle through "ON" or "OFF" by pressing either the "Up" or "Down" button, and press "Set" when your choice is displayed. The cursor will stop flashing and you can continue programming.

NOTE  *Set your Exceptions first before enabling this feature.*

4. PROGRAMMING

SPACE COMPRESS

Space Compress allows you select the number of maximum spaces next to each other in a line. The selections are 1,2,3,4,5 and OFF. If you select “1” then if three spaces are shown on the receipt the Integrated System will delete 2 and only show 1 space between characters on the video and on the output data to the DVR.

LEFT JUSTIFICATION

When LEFT JUSTIFIED is “ON”, the Integrated System will start each line of text with no leading spaces from the left margin of the text display block.

SCROLL DELAY

Scroll delay ensures that lines of text remain on-screen a minimum of 0.5 seconds. This is especially useful with registers that run at a high baud rate, time-lapse VCRs in extended record modes, switchers, or multiplexers. Sometimes, the register can produce characters so quickly that they can scroll up too fast on the screen to be recorded. When SCROLL DELAY is “ON”, the Integrated System slows down this data feed just enough to insure that each line of text is recorded.

The choices for SCROLL DELAY are either “ON” or “OFF”. To make this selection, position the arrow in front of “SCROLL DELAY” and press and release “Set”. The arrow will start flashing. Cycle through “ON” or “OFF” by pressing either the “Up” or “Down” button, then press “Set” when your choice is displayed. The cursor will stop flashing and you can continue programming.

NOTE

At high baud rates, the SCROLL DELAY on the internal buffer of the Integrated System may overflow. This will cause lost text. The internal buffer can hold up to 20K characters before overflowing so it is more than enough for almost all applications.

DISPLAY

You have the choice to globally turn “ON” or “OFF” the complete Integrated System text insertion function. This means no data will be visible on the monitor if you select DISPLAY “OFF”. However, if you select the DISPLAY “OFF”, you can still command each exception independently to either display on-screen or not through its program setup menu under “EXCEPTION REPORTS”. You may also choose to enable an alarm output to occur during an exception while not displaying the exception data through the program set-up in the ALARM OUTPUTS menu. With the display “OFF”, the Integrated System will still perform all functions as programmed, for example, exception reporting will still function, but the information will not appear on-screen unless programmed to do so in the EXCEPTIONS REPORT menu. Also the data will not show in the history buffer if not displayed.

CROSS HAIR

Press The “Up” or “Down” button to move the cursor to “CROSS HAIR” and press “Set”. The following menu will appear:

<input checked="" type="radio"/>	CROSS HAIR	ON
<input type="radio"/>	COLOR MODE	NIGHT
<input type="radio"/>	VERTICAL ADJUST	
<input type="radio"/>	HORIZONTAL ADJUST	
<input type="radio"/>	EXIT	

Figure 21: CROSS HAIR Sub-Menu

The Cross Hair puts a targeting crosshair into the video image so the user can better target the car or license plate of the vehicle they are detecting. This cross hair is recorded in the video so can be used as legal evidence the office targeted the proper vehicle with the radar. The Color mode selects a white cross hair for Night and a black cross hair for Day.

CROSS HAIR

Choices : ON, OFF

Turns the crosshair on or off. Press the “Up” or “Down” button to move the cursor to “CROSS HAIR” and press “Set”. The cursor will start flashing. Press the “Up” or “Down” button to toggle between “ON” or “OFF” and press “Set” when the desired value is displayed.

COLOR MODE

Choices : DAY, NIGHT

selects either black crosshair for Day or white crosshair for Night. Press the “Up” or “Down” button to move the cursor to “COLOR MODE” and press “Set”. The cursor will start flashing. Press the “Up” or “Down” button to toggle between time “NIGHT” or “DAY” and press “Set” when the desired color mode is displayed.

VERTICAL ADJUST

To change the vertical position of Cross Hair, press the “Up” or “Down” button to move the cursor to “VERTICAL ADJUST” and press “Set” button. Press the “Up” or “Down” buttons to move the Cross Hair to the desired vertical position, then press “Set” button to return to the Cross Hair Sub Menu.

HORIZONTAL ADJUST

To change the horizontal position of Cross Hair, press the “Up” or “Down” button to move the cursor to “HORIZONTAL ADJUST” and press “Set” button. Press the “Up” or “Down” buttons to move the Cross Hair to the desired horizontal position, then press “Set” button to return to the Cross Hair Sub Menu.

EXIT

Press the “Up” or “Down” button to move the cursor to “EXIT” and press “Set” to return to the Text Display Sub-Menu.

4. PROGRAMMING

4.6 COMMUNICATION

This was discussed briefly in the section under “DEVICE SELECT” and will be fully explained here. When you choose your unit type under the DEVICE SELECT menu, this automatically formats the Integrated System to the appropriate settings needed to communicate with your unit. There may be times when you will need to amend these settings for a specific unit.

To access the Communication menu, press the “Up” or “Down” button to move the cursor to “COMMUNICATION” and press “Set”. The following menu will appear:

<input checked="" type="radio"/> RX BAUD RATE	AUTO
<input type="radio"/> TX BAUD RATE	AUTO
<input type="radio"/> PARITY	NONE
<input type="radio"/> DATA BITS	8
<input type="radio"/> HANDSHAKE	ON
<input type="radio"/> AUTO LINEFEED	ON
<input type="radio"/> EXIT	

Figure 22: COMMUNICATION Sub-Menu

RX BAUD RATE

Choices: AUTO, 150, 300, 600, 1200, 2400, 4800, 9600, 14.4K, 19.2K, 28.8K, 38.4K

To set the baud rate for your particular device, press the “Up” or “Down” button to move the cursor to “RX Baud Rate” and press “Set”. The cursor will start flashing. You can now use the “Up” or “Down” button to make your selection. When your selection appears, press “Set” again. The cursor will stop flashing and you can proceed to the next menu item for programming.

TX BAUD RATE

Choices: AUTO, 150, 300, 600, 1200, 2400, 4800, 9600, 14.4K, 19.2K, 28.8K, 38.4K

This is a new feature that allows you to set the transmit baud rate to a separate device if you are looping the data back out of the Integrated System.

To set the TX Baud Rate for your particular device, press the “Up” or “Down” button to move the cursor to “TX BAUD RATE” and press “Set”. The cursor will start flashing. You can now use the “Up” or “Down” buttons to make your selection. When your selection appears, press “Set”. The cursor will stop flashing and you can proceed to the next menu item for programming.

NOTE

When selecting 38.4K, the TX and RX Baud rate must both be 38.4K. However, with any lower baud rate the TX and RX can be any different baud rate.

PARITY

Choices: NONE, ODD, EVEN

Press the “Up” or “Down” button to move the cursor to “PARITY” and press “Set”. The cursor will start flashing. Press the “Up” or “Down” button to cycle through the values and press “Set” when the desired value is displayed.

DATA BITS

Choices: 7 or 8

If you select 7 Data Bits, you must select “ODD” or “EVEN” Parity in the Parity menu. Press the “Up” or “Down” button to move the cursor to “DATA BITS” and press “Set”. The cursor will start flashing. Press the “Up” or “Down” button to cycle through the values and press “Set” when the desired value is displayed.

HANDSHAKE

Choices: ON, OFF

Handshaking is an electrical signal that tells the unit or computer that the Integrated System is ready to receive data. It may not be necessary and/or need not be connected to an outgoing signal from the unit or computer since the Integrated System does not require handshaking. The Integrated System handshaking signal is always true signally the unit or computer to send data.

Handshaking guarantees that the internal buffer is not over run or text is not lost. Most AVE interfaces do not support this function. Also since the Integrated System has a 20K buffer this feature is generally not required.

Press the “Up” or “Down” button to move the cursor to “HANDSHAKE” and press “Set”. The cursor will start flashing. Press the “Up” or “Down” button to cycle through the values and press “Set” when the desired value is displayed.

AUTO LINEFEED

Choices: ON, OFF

Auto Linefeed makes the Integrated System append a CR/ LF after each displayed line. The default of this function is “ON”, but if you would like to disable it then press the “Up” or “Down” button to move the cursor to “AUTO LINEFEED” and press “Set”. The cursor will start flashing. Press the “Up” or “Down” button to cycle through the values and press “Set” when the desired value is displayed.

EXIT

Press the “Up” or “Down” button to move the cursor to “EXIT” and press “Set” to return to the previous menu.

4.7 EXCEPTION REPORTS

EXCEPTION REPORT OVERVIEW

The Exception Report gives you the option to assign an on-screen flag, trigger an alarming device, or send data to another serial device on any questionable data that you have preprogrammed into the Integrated System. The Integrated System will allow programming of up to 24 separate exceptions. These exceptions can be any data new, speed over 120KPH, arriving at a designated GPS location, blood alcohol over the legal limit or any data that you determine (by programming) to be “exceptional” or questionable.

You may even set ranges for the exceptions. For example, speed over 90 MPH, between 55 and 75, or lower than 10 and greater than 100, all data by a specific car, or whatever data you need to watch exceptionally close.

4. PROGRAMMING

The following is a brief overview of how to set up Exception Reports.

1. On the main-menu, press the "Up" or "Down" button to move the cursor to "EXCEPTION REPORT" and press "Set".
2. On the sub-menu, press the "Up" or "Down" button to move the cursor to "EXCEPTION HISTORY" and press "Set".
3. On the sub-menu, press the "Up" or "Down" button to move the cursor to "DVR SELECTION" and press "Set". Then select the model of DVR you are using.
4. Exit and press the "Up" or "Down" button to move the cursor to "SET EXCEPTION" and press "Set".
5. To select the Exception No. that you wish to program, press the "Up" or "Down" button to move the cursor to the desired Exception No. then press "Set". Press the "Up" or "Down" button to toggle between the choices.
6. Make sure that "HISTORY BUFFER" is set to "ON" for any exception data to be saved in the Exception History.
7. Program the Exception String in the Exception Report to compare the data that shows on the screen for time search mode in the Exception History menu.
8. After you have set up the desired configurations, press the REC button on the DVR to record video into a hard drive or use alarm output for triggering the DVR at record input.
9. The monitor should display a flashing REC message and the REC button will light up indicating the DVR is in the recording mode.

ON-SCREEN FLAGS

You have several options for programming your Exception Report. The first option typically has all programmed exceptions display a flashing asterisk in the upper right corner of the on-screen display, or reversing the entire text display. This on-screen flag is controlled through the ALARM OUTPUTS menu. You assign a corresponding alarm to an exception and set the parameters for the flag in this menu. You do this by choosing "DISPLAY" for the corresponding exception number and selecting "ON". With this option, all questionable transactions (exceptions) will be "flagged" with the flashing asterisk.

You can then review these exceptions by putting your DVR or VCR in play and pressing the FF button. This will give you a fast scan of the tape and you can go into normal play when you see the flashing asterisk and view that transaction in real time or slow play or frame by frame, depending on the type of playback options of your particular DVR or VCR.

HARD ALARM OUTPUT

The Integrated System allows you to program exceptions to trigger external alarming devices such as time-lapse VCR's, quads, enunciators, LED's etc. Using the ALARM OUTPUT you can have your time-lapse VCR record only exceptions, or have an alarming quad go to full screen on an exception, or even trigger a buzzer to alert you that an exception has occurred.

PRINTER or DVR OUTPUT

There may be situations where you do not want cashiers or other employees to know what triggers an exception. In this case, the Integrated System provides a separate output that will send data to a remotely located serial printer. If you turn the on-screen display off and the output on and you have a remote serial printer hooked up to the Integrated System, then, whenever an exception is reported, it is sent out to the serial printer only. The printer will give you a hard copy printout of the questionable transaction with the time and date. With this hard copy printout of the exception report, you can then review the tape by going directly to that exception's time.

The serial printer output of the Integrated System can be programmed to send out the entire transaction. The output can be connected to the other equipment such as DVRs, computers, phone line transmissions or digital storage devices for later retrieval.

The Integrated System also has a "triggered text" feature. This feature allows programmed text or control characters to be sent out when an exception occurs to trigger devices like DVR's to save the data file for future review. Other computer devices can wait for this specified text string and do other functions at this time via the serial communication process.

From the main programming Integrated System menu, press the “Up” or “Down” button to move the cursor to “EXCEPTION REPORT” and press and release “Set”. The following menu will appear:

Figure 23: EXCEPTION REPORT Sub-Menu

- ☒ EXCEPTION HISTORY
- ☐ SET EXCEPTION
- ☐ OUTPUT ON
- ☐ TIME STAMP ON
- ☐ EXIT

EXCEPTION HISTORY

Press the “Up” or “Down” button to move the cursor to “ EXCEPTION HISTORY ” and press “Set”. The following menu will appear:

Figure 24: EXEPTION HISTORY Sub-Menu

- ☒ TOTAL EXCEPTION 000
- ☐ VIEW EXCEPTIONS
- ☐ DVR SELECTION
- ☐ TIME SEARCH
- ☐ OUTPUT EXCEPTIONS
- ☐ CLEAR HISTORY
- ☐ EXIT

TOTAL EXCEPTIONS

This is not a selection for just displays the total exception count kept in the Exception History Buffer.

VIEW EXCEPTIONS

This displays the buffered exceptions on-screen, starting with the oldest exception in the buffer. Press the “Up” or “Down” button to move the cursor to “VIEW EXCEPTIONS” and press “Set”. Once in the exception displaying screen, press the “Up” or “Down” button to scroll to the next screen. Press “Set” to exit and return to the previous menu. Remember, you must turn the DISPLAY “ON” for exceptions to be saved in history.

For example:

Define “☒” as an exception string In Exception No. 2 , HISTORY BUFFER to be “ON”, and define OPERATOR “NONE”.

11:09:45 A	9/12/05	TARGE	123.00
11:13:12 A	9/12/05	PATROL	254.00
11:20:23 A	9/12/05	LOCKED	126.00
11:22:21 A	9/12/05	TARGET	56.00
11:26:18 A	9/12/05	PATROL	190.00

**** END OF EXCEPTION ****

Figure 25: Display of View Exceptions

NOTE

For any exception you must program History Buffer “ON” for any exception data to be saved in the Exception History.

4. PROGRAMMING

DVR SELECTION

Press the “Up” or “Down” button to move the cursor to “DVR SELECTION” and press “Set”. The following menu will appear:

<input checked="" type="radio"/> DMS-3001
<input type="radio"/> DVR-3011.3021
<input type="radio"/> EXIT

Figure 26: DVR Selection Sub-Menu

DVR-3011 / DVR-3021

Press the “Up” or “Down” button to move the cursor to “DVR-3011.3021” and press “Set”. An asterisk appears to indicate your selection.

<input checked="" type="radio"/> DEST ID	1
<input type="radio"/> SCR ID	1
<input type="radio"/> EXIT	

Figure 27: DVR-3011.3021 Sub-Menu

DEST ID and SRC ID

Choices: 1 through 32 **Note:** The DEST ID and SRC ID can not be the same value or can not send any command.

TIME SEARCH

Press the “Up” or “Down” button to move the cursor to “TIME SEARCH” and press “Set”. The following sub-menu will appear:

TARGET	123.00
<input type="radio"/> PREVIOUS PAGE	
<input type="radio"/> 11:20:23 A	9/12/05
<input type="radio"/> 11:22:21 A	9/12/05
<input type="radio"/> 11:22:21 A	9/12/05
<input checked="" type="radio"/> 11:22:21 A	9/12/05
<input type="radio"/> 11:22:21 A	9/12/05
<input type="radio"/> NEXT PAGE	
<input type="radio"/> EXIT	

Figure 28: Display of TIME SEARCH

Use the “Up” or “Down” button to scroll to the desired exception in the transaction history. As you select the line the exception string will display at the top of the page.

Then press “Set” and the DVR will be commanded by the Integrated System to go to the selected transaction via its Time/Date Search function. Therefore you must make sure the T/D of the DVR is very close to the setting of the Integrated System or there will be an error in the actual search time. Verify the proper connection to the DVR from the diagram on the following page.

EXAMPLE

Define “☉” as an exception string In Exception No. 2, HISTORY BUFFER to be “ON”, and define OPERATOR “NONE”. If the screen is displayed any data, the Integrated System will keep this displayed on Exception History.

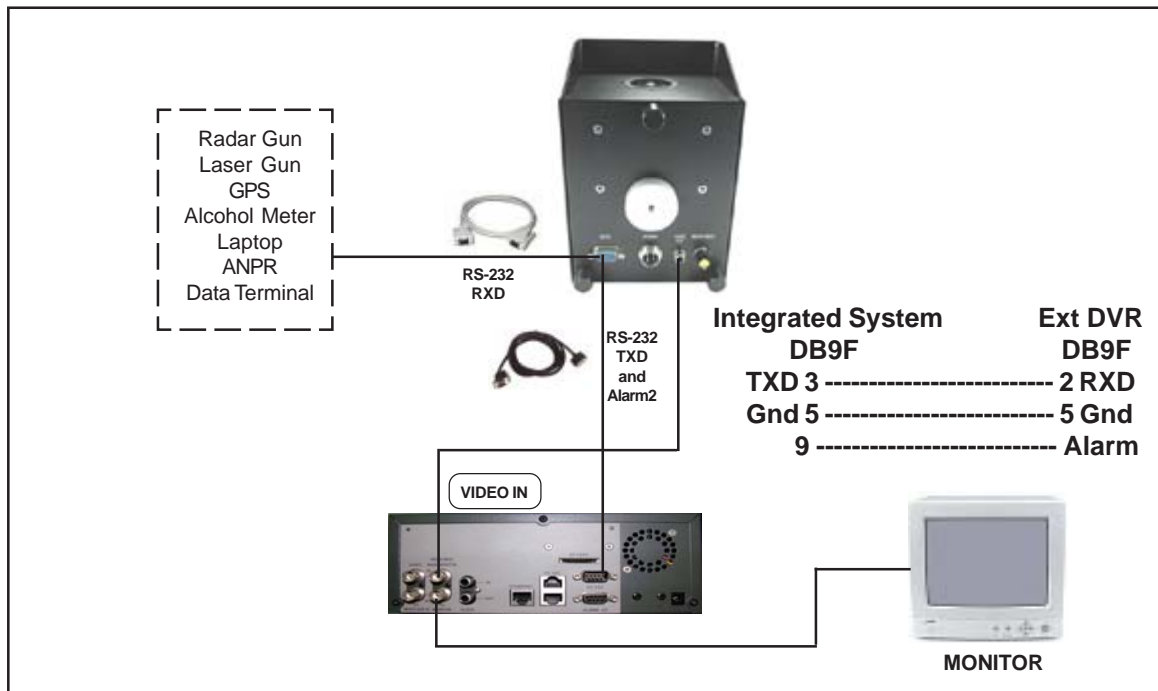


Figure 29: Integrated System with External DVR Connections

OUTPUT EXCEPTIONS

This selection allows you to have the buffered exceptions sent out for printing. This is a global setting for all exceptions, but you also need to turn on the output for each independent exception.

CLEAR HISTORY

This selection clears all the buffered exceptions and resets the TOTAL EXCEPTIONS counter.

EXIT

Press the “Up” or “Down” button to move the cursor to “EXIT” and press “Set” to return to the previous menu.

SET EXCEPTION

Press the “Up” or “Down” button to move the cursor to “SET EXCEPTION” and press “Set”. The following sub-menu will appear:

<input type="radio"/> EXCEPTION NO.	1
<input type="radio"/> DISPLAY	ON
<input type="radio"/> OUTPUT	ON
<input type="radio"/> HISTORY BUFFER	ON
<input type="radio"/> SCROLL MATCHING	OFF
<input type="radio"/> EXCEPTION STRING	
<input checked="" type="radio"/> RANGE	0000.00 - 0000.00
<input type="radio"/> OPERATOR	NONE
<input type="radio"/> EXIT	

Figure 30: SET EXCEPTION Sub-Menu

4. PROGRAMMING

EXCEPTION NO.

Choices: 1 through 24

To select the Exception No. that you wish to program, press the “Up” or “Down” button to move the cursor to “EXCEPTION NO.” and press “Set”. The cursor will start flashing. Use the “Up” & “Down” button to sequence through the choices. Make your selection and press “Set”. The cursor will stop flashing and you may continue to the next menu item.

DISPLAY

Choices: ON, OFF

The DISPLAY item lets you control whether or not this particular exception is displayed on the video monitor. Please understand that if you are not using a remote serial printer and if you do not turn on the Exceptions display here, you will not have the on-screen flag and consequently no record of the exception when it occurs.

To make your selection, press the “Up” or “Down” button to move the cursor to “DISPLAY” and press “Set”. The cursor will start flashing. Press the “Up” or “Down” button to toggle between “ON” or “OFF”. Make your selection and press “Set”. The cursor will stop flashing and you may continue to the next menu item.



APPLICATION NOTE

If the display of the Exception is turned off here, the exception data will actually be erased from the screen. This feature can be used to generate what we refer to as “Negative Exceptions”, allowing the removal of unwanted text from the screen. See “Negative Exceptions” that follows.

OUTPUT

Choices: ON, OFF

The OUTPUT controls the RS-232 data from the Integrated System. Typically this is sent to a remote Serial Printer to provide a hard copy of Exceptions with time and date on it. This data can also be sent out to a computer with appropriate software and give you the ability to analyze data. You could also use an auto answer modem and have the data sent to a central office or even to your home. The serial devices must have the same Baud Rate, Parity, and Data Bits as the Integrated System for optimum performance of data transfer.

To make your selection, press the “Up” or “Down” button to move the cursor to “OUTPUT” and press “Set”. Press the “Up” or “Down” button to toggle between “ON” or “OFF”. Make your selection and press “Set”. The cursor will stop flashing and you may continue to the next menu item.

HISTORY BUFFER

Choices : ON , OFF

The history buffer stores all the exceptions that are occur in the Integrated System. Sometimes this can be very large and consume a large portion of the memory of the Integrated System. This can be used to automatically search a compatible DVR, upload to a PC to save or print out and view on screen on the Integrated System. This setting allows the user to enable or disable this feature as to conserve memory allocation for other features.

To make your selection, press the “Up” or “Down” button to move the cursor to “HISTORY BUFFER” and press “Set”. Press the “Up” or “Down” button to toggle between “ON” or “OFF”. Make your selection and press “Set”. The cursor will stop flashing and you may continue to the next menu item.

SCROLL MATCHING EXCEPTION STRINGS ON/OFF

Scroll Matching is a feature to better remove those advertising scrolling messages on the customer display of cash registers so they do not clutter up the video recording. To better understand how to use this, first we must discuss how the Exception String is processed.

Exception Strings (with Scroll Matching OFF) are compared to any text in a line or any text after a CR LF up to 20 characters. If the line is longer than 20 characters we insert a virtual LF CR. Therefore exception string can not be longer than 20 characters. If you use a wild card in front of or behind of a normal exception string then no matter what letter is recieved in that position of the wild card it will be accepted as part of exception string.

Typically to erase these scrolling messages we would use the Negative Exception feature and turn "Off" the display after we entered in the words with or without wildcards. However this left many unwanted bits and pieces of the scrolling message visible because the transactions interrupt the scrolling message and then when the transaction is completed the scrolling message goes back to the exact place in the message where it was interrupted. This is different than normal transactions for they always start with a the description, quantity and price usually in one line.

In scrolling messages we may not have LF and sometimes no CR. This has the first character of every line different of the scrolling message possibly different and even partial words starting at any place within any one of the words of the scrolling message. Therefore conventional Exceptions even with the wild card does not remove all.

Scroll Matching "On" allows you to enter an exception string with or without wildcards and no matter when this string is detected the entire line is erased. This feature "On" does not process the exception string any differently than normal exceptions with Display "Off" but gives a higher priority than any normal exception set with Scroll Matching "Off" and Display "On".

This means that if you set an Exception for "Shipping" with or without a dollar figure associated and a normal transaction that you wanted to generate an exception and set Display "On". Everytime you hit the "Shipping" key your would get an exception. However if you had a scrolling message "You can rely on us for all your Shipping needs" Then you might want to erase this entire line and by doing so the word shipping would be included in the exception with scroll matching "On". In this case you would never see the normal transactions with Shipping \$4.50 either as an exception or displayed for the Scroll Matching would override.

A rule of thumb is to never use a scroll matching word the same word as any word in an item description or any partial word that is a partial of any item description.

To make your selection, press the "Up" or "Down" button to move the cursor to "SCROLL MATCHING" and press "Set". Press the "Up" or "Down" button to toggle between "ON" or "OFF". Make your selection and press "Set". The cursor will stop flashing and you may continue to the next menu item.

4. PROGRAMMING



PROGRAMMING NOTE

The following sections defines the Exceptions Strings, the Operator and the Range. The Exception String is programmed first, then Range is defined and finally the Operator is selected. The Integrated System looks at the Exceptions String first, and if there is data that matches, it then checks to see if a Range has been defined.

EXCEPTION STRING

The Integrated System compares the data that is printed to video to the data entered in the Exception String. The Exception String can also be used without a defined range. Example of this would be to assign a word "Target" as an exception. Integrated System will look for that string so range definition is not necessary. However, exception string "Target" could be further defined by assigning a Range, i.e. all "Target" over 80MPH.

You can also define a global exception to flag all negative transactions. An example of this using the a radar gun would be the following exception to flag any speed that contains a "-", or negative sign. For example, in the an assigned Exception string "...-" will flag all speeds in the reverse direction say on a one way street and send out to the monitor.

You can also use wild card symbol ".", a centered dot on any data location. An example of this would be instead of assigning eight different exception strings for dept 00 to dept 07, you can assign only one exception string e.g. "dept .". That wild card exception string will handle exceptions for all eight departments.

To program the exception string, press the "Up" or "Down" button to move the cursor to "EXCEPTION STRING" and press "Set". The first 40 character exception will become active after flashing. Program in your exception string.

The default setting for the "Radar Gun" is **LOCK** and the default setting for the "Laser Gun" is **SPEED**.

NOTE

Remember to enter your Exception String based on the way that data prints to video, including spaces. Also remember pressing "Set" advances to the next position. Pressing "Down" and "Up" at the same time enters the string into memory and returns to the menu for further programming.



TIP

If you make a mistake and need to erase a character, pressing "Up" and "Set" at the same time will change the character back to a blank space.

NEGATIVE EXCEPTION

You can remove unwanted text from the screen using the Integrated System. The Integrated System displays data in the text block 11 lines by 40 characters wide for total of 440 characters. To remove unwanted messages from the register data you first determine how the unwanted messages prints to the video. For example, a typical message which scrolls on the customer display or appears on the video monitor.

The removing of the above string is referred to as the Negative Exception. Follow the following steps to program the negative exception. Turn the display off for that exception. In the Exception String enter the words "Patrol" exactly as they appear on the screen, including spaces.

NOTE

Only 40 characters are allowed in each Exception String, including blank spaces.

RANGE

Choices: 0000.00-9999.99

The Range defines the limits of the Operator. These are numeric only. As you can see from the previous examples, the range has two separate fields that are separated by a double-sided arrow. This format must be followed.

To program the range, press the "Up" or "Down" button to move the cursor to "RANGE" and press "Set". The first "0" in the range starts to flash. This means it is active and ready for programming. Press the "Up" or "Down" button to cycle through the values and press "Set" when the desired value is displayed. This will advance the active block to the next character. While you are on an active block, pressing the "Up" and "Set" buttons simultaneously will return that block back to a blank, which is designated by a solid white box. You can follow this format to program your range. When you have finished and want to set this range into the Integrated System memory, simultaneously press and release the "Up" and "Down" buttons.

When you are ready to exit and continue on, simultaneously press and release the "Up" and "Down" buttons. This will set the range in the Integrated System memory and exit you back to the previous menu.

The default setting for the "Radar Gun" and the "Laser Gun" is **"0000.00 - 0080.00"**

OPERATOR

Choices: NONE, IN, OUT

The Operator determines the behavior of the Range. Think of the Operator in mathematical terms. Setting the correct range and specifying "IN" or "OUT" will make the Operator perform "greater than", "less than", "equal to", "in the range", or "out of the range" calculations.

With this version of the Integrated System, you can define ranges for your exceptions and have the Integrated System alarm when an exception falls within the range's parameters or outside the range of the two numbers. The choices are "IN", "OUT", and "NONE". To program the operator, press the "Up" or "Down" button to move the cursor to "OPERATOR" and press "Set". The cursor will start flashing. Press the "Up" or "Down" button to cycle through the values and press "Set" when the desired value is displayed.

The default setting for the "Radar Gun" and the "Laser Gun" is **"OUT"**

The following is a brief overview of how to set for triggering when over a programmed speed.

1. On the Main-Menu, press the "Up" or "Down" button to move the cursor to "EXCEPTION REPORT" and press "Set".
2. On the Sub-Menu, press the "Up" or "Down" button to move the cursor to "SET EXCEPTION" and press "Set".
3. To select the Exception No. that you wish to program, press the "Up" or "Down" button to move the cursor to the desired Exception No. then press "Set". Press the "Up" or "Down" button to toggle between the choices.
4. Program the Exception String in the Exception Report to compare the data that shows on the screen, Depending on the type of Radar Gun. Example, LASER ATLANTA is "SPEED"
5. On the "SET EXCEPTION" sub-menu. Press the "Up" or "Down" button to move the cursor to "RANGE" and press "Set". The first "0" in the range starts to flash, then set the value of range to the maximum speed.
6. On the "SET EXCEPTION" sub-menu. Press the "Up" or "Down" button to move the cursor to "OPERATOR" and press "Set". The cursor will start flashing. Press the "Up" or "Down" button to cycle through the values and press "Set" when "OUT" is displayed. Press the "Up" or "Down" button to move the cursor to "EXIT" and press "Set" to return to The "EXCEPTION REPORT" sub-menu. Press the "Up" or "Down" button to move the cursor to "EXIT" and press "Set" to return to The Main-Menu.
7. On the Main-Menu, press the "Up" or "Down" button to move the cursor to "ALARM OUTPUTS" and press "Set". The ALARM OUTPUTS menu will appear. Then, set the ALARM NO. to be "1" and set the ALARM TRIGGER, The alarm trigger tells the Integrated System what exception to use to trigger the alarming device, is identical with that configured in the item# 3.

If the speed exceeds the "RANGE", maximum speed. The Internal DVR of Integrated System will start recording.

4. PROGRAMMING

EXMAPLES FOR SETTING EXCEPTION

EQUAL

Suppose Exception #2 would be flag all \$10 sales on Register Department 1. This would be the settings for this Exception: (For these examples, we are using the Samsung ER-4715 Electronic Cash Register)

Exception	No. 2
Display	ON
Output	ON,OFF (depending on presence of serial printer)
Exception String	1 . . .
Range	0010.00-0010.00
Operator	IN

OUT RANGE

Suppose Exception #3 would "FLAG" every transaction on Department 2 that is under 10 cents and over \$100 dollars. This would be the settings for this Exception:

Exception	No. 3
Display	ON
Output	ON, OFF (Depending on presence of serial printer).
Exception String	2 . . .
Range	0000.10 -0099.99
Operator	OUT

IN RANGE

Suppose Exception # 5 would flag all transactions between \$50.00 & \$100.00 on Department 3:

Exception No.	5
Display	ON
Output	ON or OFF (Depending on presence of serial printer).
Exception String	3 ...
Range	0049.99-0099.99
Operator	IN

With this exception all sales between \$50 and \$100 dollars will be flagged.

GREATER THAN

This example will show you how to program an exception to flag all sales in department 5 greater than \$100 dollars

Exception	No. 2
Display	ON
Output	ON or OFF
Exception String	5...
Range	0000.01- 0099.99
Operator	OUT

Now whenever anyone rings a sale of \$100 or more on Department 5, the transaction will be flagged.

LESS THAN

This example will show you how to program an exception to flag all sales in Department 6 of less than \$100. 00:

Exception	No. 4
Display	ON
Output	ON or OFF
Exception String	6...
Range	0000.01-0099.00
Operator	IN



EXCEPTION REPORT MENU CONTINUED**OUTPUT**

Choices: ON, OFF

This is global output to send data to the serial printer. When "ON" is selected all the data will be send to the serial printer regardless of what setting of out put has selected in the individual output in set exception menu. When "OFF" is selected only those exception will send to the serial printer whose out put is "ON" under set exceptions menu for individual exceptions. To turn output "ON" or "OFF", press the "Up" or "Down" button to move the cursor to "OUTPUT" and press "Set". Press the "Up" or "Down" button to cycle through the values and press "Set" when the desired value is displayed.

TIME STAMP

Choices: ON, OFF

If TIME STAMP is selected "ON" then printer will print the exception with time stamp flag, otherwise just print the Exception. To turn TIME STAMP "ON" or "OFF", press the "Up" or "Down" button to move the cursor to "TIME STAMP" and press "Set". Press the "Up" or "Down" button to cycle through the values and press "Set" when the desired value is displayed.

EXIT

Press the "Up" or "Down" button to move the cursor to "Set" to return to the previous menu.

4.8 ALARM OUTPUTS

To access alarm output, press the "Up" or "Down" button to move the cursor to "ALARM OUTPUTS" and press "Set". The following sub-menu will appear:

<input checked="" type="radio"/> ALARM NO.	1
<input type="radio"/> ALARM TRIGGER	EX 1
<input type="radio"/> NORMAL STATE	NO
<input type="radio"/> ALARM DURATION	20
<input type="radio"/> FLAG TYPE	FLASH *
<input type="radio"/> FLAG DURATION	000
<input type="radio"/> TRIGGERED TEXT	
<input type="radio"/> ALARM TYPE	DWELL
<input type="radio"/> EXIT	

Figure 31: ALARM OUTPUTS Sub-Menu

The ALARM OUTPUTS menu controls not only the formatting of the external alarms but also the formatting of the on-screen flags assigned to individual exceptions.

ALARM NO.

Choices: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16

The Integrated System allows you up to 16 alarms that may be used with any of the user programmed exceptions. However there are only 2 hardwired alarm outputs and these correspond to Alarm 1 & 2 only. The other 14 alarms can be used to send trigger text, serial data out or flash the screen. To select the Alarm Number that you want to program, press the "Up" or "Down" button to move the cursor to "ALARM NO." and press "Set". The cursor will start flashing. Press the "Up" or "Down" button to cycle through the values and press "Set" when the desired value is displayed.

NOTE : Alarm No. 1 be reserved for the internal DVR of Integrated Portable System.

4. PROGRAMMING

ALARM TRIGGER

Choices: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 1-12, 13-24, 1-24, NONE

An Alarm Trigger is the source of activity programmed to activate a certain alarm. The alarm trigger tells the Integrated System what exception to use to trigger the alarming device or the on-screen flag.

Exceptions 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, and 24: alarms when data is received that matches what you have set in these exception strings.

Exceptions 1-12: alarms when data is received that matches any data set in Exception 1-12.

Exceptions 13-24: alarms when data is received that matches any data set in Exception 13-24.

Exceptions 1-24: alarms when data is received that matches any data set in Exception.

NORMAL STATE

Choices: NO (Normally open), NC (Normal closed)

There are two choices: NO (normally open) or NC (normal closed). These selections determine whether the alarm outputs will act as a normally open switch or a normally closed switch.

To select the Normal State that you want to program, press the "Up" or "Down" button to move the cursor to "NORMAL STATE" and press "Set". The cursor will start flashing. Press the "Up" or "Down" button to cycle through the values and press "Set" when the desired value is displayed.

ALARM DURATION

This is the amount of time in seconds that the alarm will remain activated once it is triggered. The selections for alarm duration are: PULSE, 6, 12, 20, 30, 60, 120, 180, and 300 seconds. (PULSE sends a 200mS alarm pulse to the alarm device.)

To select the amount of time in seconds that you want to program the alarm duration, press the "Up" or "Down" button to move the cursor to "ALARM DURATION" and press "Set". The cursor will start flashing. Press the "Up" or "Down" button to cycle through the values and press "Set" when the desired value is displayed.

FLAG TYPE

This feature allows you to insert a visual alarm flag on each exception that you program to aid in the review of the video tape. This flag can appear as an asterisk "*", a flashing asterisk, reverse text, or flashing reverse text.

To make your selection, press the "Up" or "Down" button to move the cursor to "FLAG TYPE" and press "Set". The cursor will start flashing. Press the "Up" or "Down" button to cycle through the values and press "Set" when the desired value is displayed.

FLAG DURATION

Choices: 6, 12, 30, 60, 120, 180,..., 300

This is the amount of time in seconds that the on-screen FLAG, either the Asterisk or the Reverse mode, will remain activated once it is triggered.

NOTE 

Flag Duration is independent of the Alarm Duration. Flag Duration is the amount of time the on-screen flag will remain on after activation, while, Alarm Duration is the amount of time that the hard-wired Alarm Output remains activated after it is triggered.

To select the amount of time in seconds that you want to program for the flag duration, press the “Up” or “Down” button to move the cursor to “FLAG DURATION” and press “Set”. The cursor will start flashing. Press the “Up” or “Down” button to cycle through the values and press “Set” when the desired value is displayed.

TRIGGERED TEXT

A Triggered Text is a data string that associates with one of the 16 alarms or with external RTS alarm. When the alarm is triggered by a source, the associated string is sent out and/or displayed, if enabled respectively. Each Triggered Text can contain up to 40 printable ASCII data. If non-printable data (control code) is included, each control code occupies 3 printable spaces. Therefore, only 13 control codes maximum can be programmed in one Triggered Text. To program the TRIGGERED TEXT, go to the ALARM OUTPUTS sub-menu. Select desired ALARM NO or RTS for external alarm. Then go to the TRIGGERED TEXT sub-menu.

<input checked="" type="radio"/>	DISPLAY TEXT	OFF
<input type="radio"/>	OUTPUT TEXT	OFF
<input type="radio"/>	SET TRIGGERED TEXT	
<input type="radio"/>	EXIT	

Figure 32: TRIGGERED TEXT Sub-Menu

DISPLAY TEXT

Choices: ON, OFF

Press the “Up” or “Down” button to move the cursor to “DISPLAY TEXT” and press “Set”. The cursor will start flashing. Press the “Up” or “Down” button to cycle through the values and press “Set” when the desired value is displayed. Selecting “OFF” will not display any exception text on the video output.

OUTPUT TEXT

Choices: ON, OFF

Press the “Up” or “Down” button to move the cursor to “OUTPUT TEXT” and press “Set”. The cursor will start flashing. Press the “Up” or “Down” button to cycle through the values and press “Set” when the desired value is displayed. Selecting “OFF” will not send any exception text to the serial printer.

4. PROGRAMMING

SET TRIGGERED TEXT

Press the “Up” or “Down” button to move the cursor to “SET TRIGGERED TEXT” and press “Set”. The following sub-menu will appear:



Figure 33: Set Triggered Text Sub-Menu

You can enter 2 lines with 40 alpha numeric text on each line. You can also enter non-printable data (control code) instead of triggered text. Each control code occupies 3 characters, therefore you can enter 13 control codes in a line. To enter control code, first print up arrow ^ followed by 2 hex digit. For example, hex code 01 has to be entered like ^ 01.

Press “Up” and “Down” simultaneously to exit..

ALARM TYPE

Choices : DWELL, TIMED

There are two choices : DWELL or TIMED. If select DWELL, the Integrated System will generate many alarm. If select TIMED, Integrated System will generate alarm only one time until lock data is changed or cleared.

To select the Alarm Type that you want to program, Press the “Up” or “Down” button to move the cursor to “ALARM TYPE” and press “Set”. The cursor will start flashing. Press the “Up” or “Down” button to cycle through the values and press “Set” when the desired value is displayed.

EXIT

Press the “Up” or “Down” button to move the cursor to “EXIT” and press “Set” to return to the previous menu.

4.9 TEST/DEMO MODE

The TEST/DEMO MODE provides you with several ways to test the Integrated System and demonstrate its capabilities as a Radar Gun or unit interface. Press the “Up” or “Down” button to move the cursor to “TEST/DEMO MODE” and press “Set”. The following sub-menu will appear:

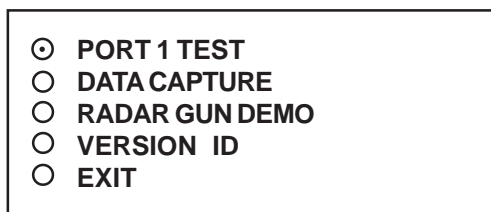


Figure 34: TEST/DEMO MODE Sub-Menu

PORT 1 TEST

Sending and receiving data performance can be analyzed under the PORT 1 TEST sub-menu. Press the “Up” or “Down” button to move the cursor to “PORT 1 TEST” and press “Set”. The following sub-menu will appear:

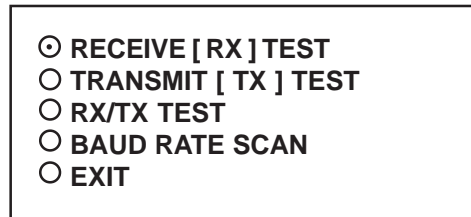


Figure 35: PORT 1 TEST Sub-Menu

RECEIVE [RX] TEST

The purpose of this test is to determine that if Integrated System is receiving the data or not. Press the “Up” or “Down” button to move the cursor to “RECEIVE [RX] TEST”. The following display will appear (example only):

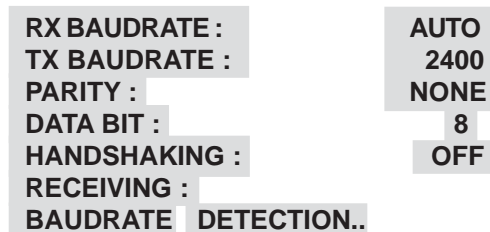


Figure 36: RECEIVE [RX] TEST Display

Receiving data will be appear in three sperate lines, scrolling from right to left. The first line is the actual ASCII data coming from the register while last two lines are HEX conversion of ASCII data. If you do not receive any data, check the connections between Integrated System and device or any additional interfacing device.

Press “Set” to return to the previous menu.

TRANSMIT [TX] TEST

The purpose of this test is to determine that if the Integrated System is able to transmit data or not. Press the “Up” or “Down” button to move the cursor to “TRANSMIT [TX] TEST” and press “Set”. The following display will appear (example only):

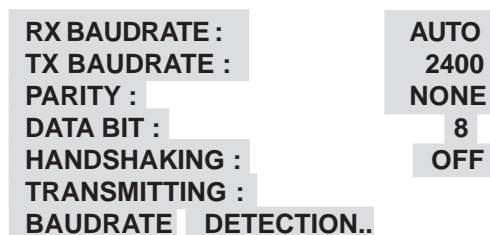


Figure 37: TRANSMIT [TX] TEST Display

If Integrated System transmitting data you will see some predefined ASCII character on the screen. If you don’t see any characters on the screen, check the connections and try again.

Press “Set” to return to the previous menu.

4. PROGRAMMING

NOTE

In any of the above tests, you can stop the scrolling data by holding down either “Up” or “Down” button.

RX / TX TEST

In the RX/TX test the Integrated System echos whatever it receives. Press the “Up” or “Down” button to move the cursor to “RX/TX TEST” and press “Set”. The following display will appear (example only):

RX BAUDRATE :	AUTO
TX BAUDRATE :	2400
PARITY :	NONE
DATA BIT :	8
HANDSHAKING :	OFF
ECHOING :	
BAUDRATE	DETECTION..

Figure 38: RX /TX TEST Display

Press “Set” to return to the previous menu.

BAUD RATE SCAN

The Baud Rate Scan test can scan the baud rate of your register. Press the “Up” or “Down” button to move the cursor to “BAUD RATE SCAN” and press “Set”. The following display will appear (example only):

RX BAUDRATE :	AUTO
TX BAUDRATE :	2400
PARITY :	NONE
DATA BIT :	8
HANDSHAKING :	OFF
BAUDRATE SCAN :	
BAUDRATE	DETECTION..

Figure 39: Baudrate Scan Display

Enter a transaction from the register. The Integrated System will detect the baud rate and display it in front of RX Baud rate.

Press “Set” to return to the previous menu.

EXIT

Press the “Up” or “Down” button to move the cursor to “EXIT” and press “Set” to return to the previous menu.

DATA CAPTURE

This feature allow user to store the data either internal memory of Integrated System or some external data storing device. Press the “Up” or “Down” button to move the cursor to “DATA CAPTURE” and press “Set”. The following sub-menu will appear:



Figure 40: DATA CAPTURE Sub-Menu

Press “Set” to return to the previous menu.

CAPTURE TO PORT 1

This feature redirect the incoming data to Integrated System to its output (Pin 3 of AT type RS-232 female connector) where that data can be stored to data storing devices (e.g. PC). This feature is useful to store non-RS 232 format data. Press the “Up” or “Down” button to move the cursor to “CAPTURE TO PORT 1 and press “Set”. The following display will appear (example only):

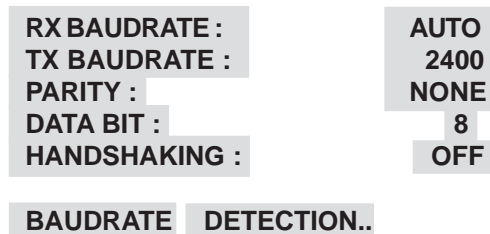


Figure 41: CAPTURE TO PORT 1 Display

Press “Set” to return to the previous menu.

CAPTURE TO MEMORY

This feature allow you to store the data in the internal memory of Integrated System. You can store up to 20 kilobytes of data in the internal memory of Integrated System. Power up the Integrated System for 24 hours prior to download of data. This will provide Integrated System’s internal battery a full charge to hold data in its memory. Press the “Up” or “Down” button to move the cursor to “CAPTURE TO MEMORY” and press “Set”. The following display will appear (example only):

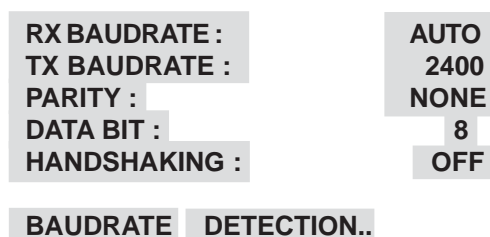


Figure 42: CAPTURE TO MEMORY Display

Press “Set” to return to the previous menu.

NOTE

Integrated System can only hold up to 20 kilobytes of data to make sure that you only transfer the data which is in correct format.

4. PROGRAMMING

NOTE  Any Programming or data transfer of any kind can overwrite the saved data in memory.

DUMP MEMORY

You can upload any saved information from the Integrated System memory to any PC or some specific communication devices using appropriate upload cable. To upload the information into a PC you must have any communication software which can transfer the binary data. Press the “Up” or “Down” button to move the cursor to “DUMP MEMORY” and press “Set”. The Integrated System will start uploading the data.

RADAR GUN DEMO

This demonstration simulates the data from an actual radar gun. This is used to demonstrate the Integrated System’s capabilities with just a monitor and camera without having a device hooked up. When the demo mode is active the Integrated System thinks the data is actually coming from a real radar gun. You can use this demo data to configure exceptions and alarms to be fully functional for a complete customer demonstration.

Press the “Up” or “Down” button to move the cursor to “RADAR GUN DEMO” and press “Set”. You will see the following;

<input checked="" type="radio"/>	DEMO	
<input type="radio"/>	DEMO ON POWER UP	OFF
<input type="radio"/>	EXIT	

Figure 43: RADAR GUN DEMO Sub-Menu

Selecting “DEMO” will start the demo after a few seconds. To exit this demo, press and release “Reset”. If data is sent to the Integrated System during this demo mode with “DEMO ON POWER UP” set to OFF then the demo mode will be disabled and you must go back into the programming mode and select again as described above.

If you select “DEMO ON POWER UP” as “ON” then pressing the “Reset” or powering up or down will have no effect on the demo mode and will continuously work until disabled by this menu selection. If you connect the Integrated System to a device and it sends data to the Integrated System during this demo mode then the demo mode will also be disabled until you press “Reset” or power down and up again.

VERSION ID

When selected, this will display the version of software in use by the Integrated System shown detail (example below).

VSI-PRO Version 13.03R6
09/03/2010

EXIT

Press the “Up” or “Down” button to move the cursor to “EXIT” and press “Set” to return to the previous menu.

4.10 DOWNLOAD/UPLOAD SETUP

This feature lets you upload or download data between two Integrated System’s. This feature is especially helpful on multi-interface installations. You can program one Integrated System and download the data to another Integrated System with the download/upload feature and a data transfer cable. The cable is made up of two male DB-9 connectors and the pin-out is below. **NOTE:** This feature is only available to like versions and release. Therefore you can only program a Ver. 13.03R6 with a same exact Integrated System Version and Release or erroneous data will occur.

Figure 44: Download/Upload Data Cable

DOWNLOAD/UPLOAD DATA CABLE

PIN 2	-----	PIN 3
PIN 3	-----	PIN 2
PIN 5	-----	PIN 5

DOWNLOAD/UPLOAD SETUP USING INTEGRATED SYSTEM TO INTEGRATED SYSTEM

To insure that the DOWNLOAD/UPLOAD process is accomplished, you need to access the programming menu for both Integrated System, so each Integrated System needs a video input and a monitor. The optimum way to perform the DOWNLOAD/UPLOAD process would be to have a system set up with two separate cameras and monitors and the programmed Integrated System with the download data cable attached. The Integrated System programming data is stored internally in a battery backed 32K x SRAM. This would allow you to program one Integrated System on-site and bring the programmed Integrated System back to the shop or office and program additional Integrated Systems quickly. We realize this may not always be possible to do and that there may be a need for field programming. The only difficulty with the field DOWNLOAD/UPLOAD process is accessing the programming menus of both Integrated Systems simultaneously.

The use of the diagram in Figure 45 will let you perform the DOWNLOAD/UPLOAD process in the field. For this, you will need a short BNC to BNC cable approximately a foot long, the data cable, and a monitor that can be used next to the Integrated Systems.

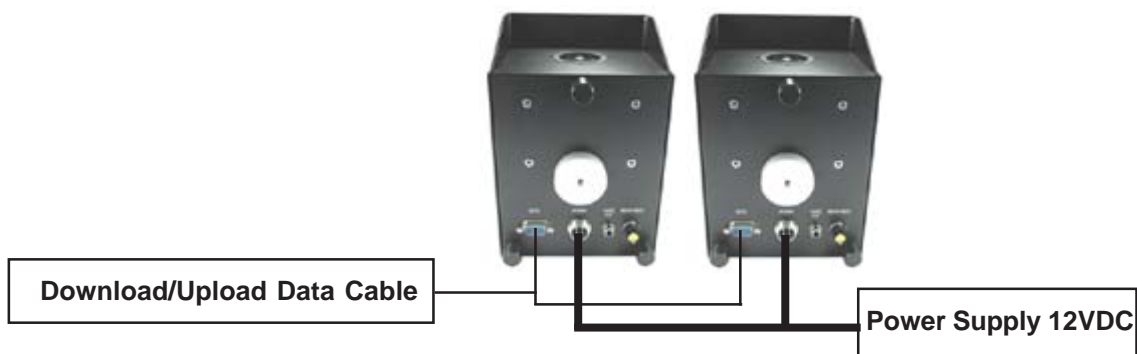


Figure 45: DOWNLOAD/UPLOAD SETUP Using Integrated System to Integrated System

The PROGRAMMED Integrated System will upload data to the UNPROGRAMMED Integrated System. In the configuration in the Figure 45, you can get the programming menus for both Integrated Systems on the screen at the same time.

Let's bring up the PROGRAMMED Integrated System first. To do this, simultaneously press and hold "Up" and "Down" and press and release "Reset", then release "Up" and "Down". This will bring up the main-menu and it should be on the top left of the screen. Now go to the UNPROGRAMMED Integrated System and do the same thing. You should now have both programming on each unit respectively.

4. PROGRAMMING

To proceed with the DOWNLOAD/UPLOAD SETUP, we will configure the UNPROGRAMMED Integrated System first. From the main-menu, press the “Up” or “Down” button to move the cursor to “DOWNLOAD/UPLOAD SETUP” and press “Set”. The following sub-menu will appear:



Figure 46: DOWNLOAD/UPLOAD SETUP Sub-Menu

Press the “Up” or “Down” button to move the cursor to “DOWNLOAD SETUP” and press “Set”. The following sub-menu will appear. Move the cursor to “DOWNLOAD SETUP” and press “Set” and the display “DOWNLOAD SETUP...” will appear:



Figure 47: DOWNLOAD SETUP Sub-Menu & Display

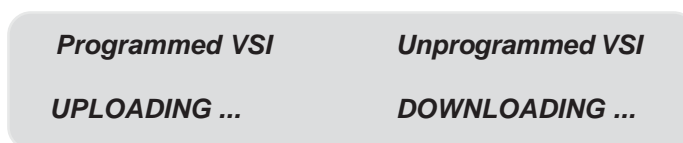
The UNPROGRAMMED Integrated System is now waiting to receive data from the PROGRAMMED Integrated System.

Now go to the main-menu of the PROGRAMMED Integrated System and follow the previous instructions to get to “UPLOAD SETUP” and press “Set”. The following sub-menu will appear. Move the cursor to “UPLOAD SETUP” and press “Set” and the display “UPLOAD SETUP...” will appear:



Figure 48: UPLOAD SETUP Sub-Menu & Display

The data transfer will begin and you will have a screen count down of the status that reads:



The count will end at 100. When this prompt clears the screen, the data transfer is complete. Press “Reset” to exit this menu on both Integrated System’s.

Now go to the main-menu of the previously UNPROGRAMMED Integrated System. Enter the EXCEPTIONS menu. You should see your exceptions and other programmed data just as they were on the original PROGRAMMED Integrated System.

For locations or companies with a large number of units, we strongly advise that you keep one programmed Integrated System as a master and a backup to insure your system integrity. This will also aid in reprogramming any changes and protect against any catastrophic events.

Integrated System Firmware Download Menu

To update the Integrated System, Select the Integrated System Firmware Download Function and follow the instructions below. Then select "UPDATE FIRMWARE" from the menu selection.

Figure 49: UPDATE FIRMWARE Sub-Menu

- ☐ DOWNLOAD SETUP
- ☐ UPLOAD SETUP
- ☒ UPDATE FIRMWARE
- ☐ EXIT

Integrated System Firmware Download Function

This document describes the Integrated System V13.14 R10 The new features of this version are able to download firmware update via the RS-232 port. The LDROM 4K boot strap loader must be burner to the uP via a conventional programmer. Then the executable program is then loaded via any terminal program such as Hyper Terminal via a PC or compatible device. All firmware files are encoded to the AVE proprietary format and decoded by the bootstrap loader for standard program execution.

Update Firmware of Integrated System

You have to connect the Integrated System with a Serial Program Terminal such as HyperTerminal, IC etc. But advise to use HyperTerminal. First, you have to set the baud rate HyperTerminal to 19200

See PC Windows below to verify proper HyperTerminal setup.

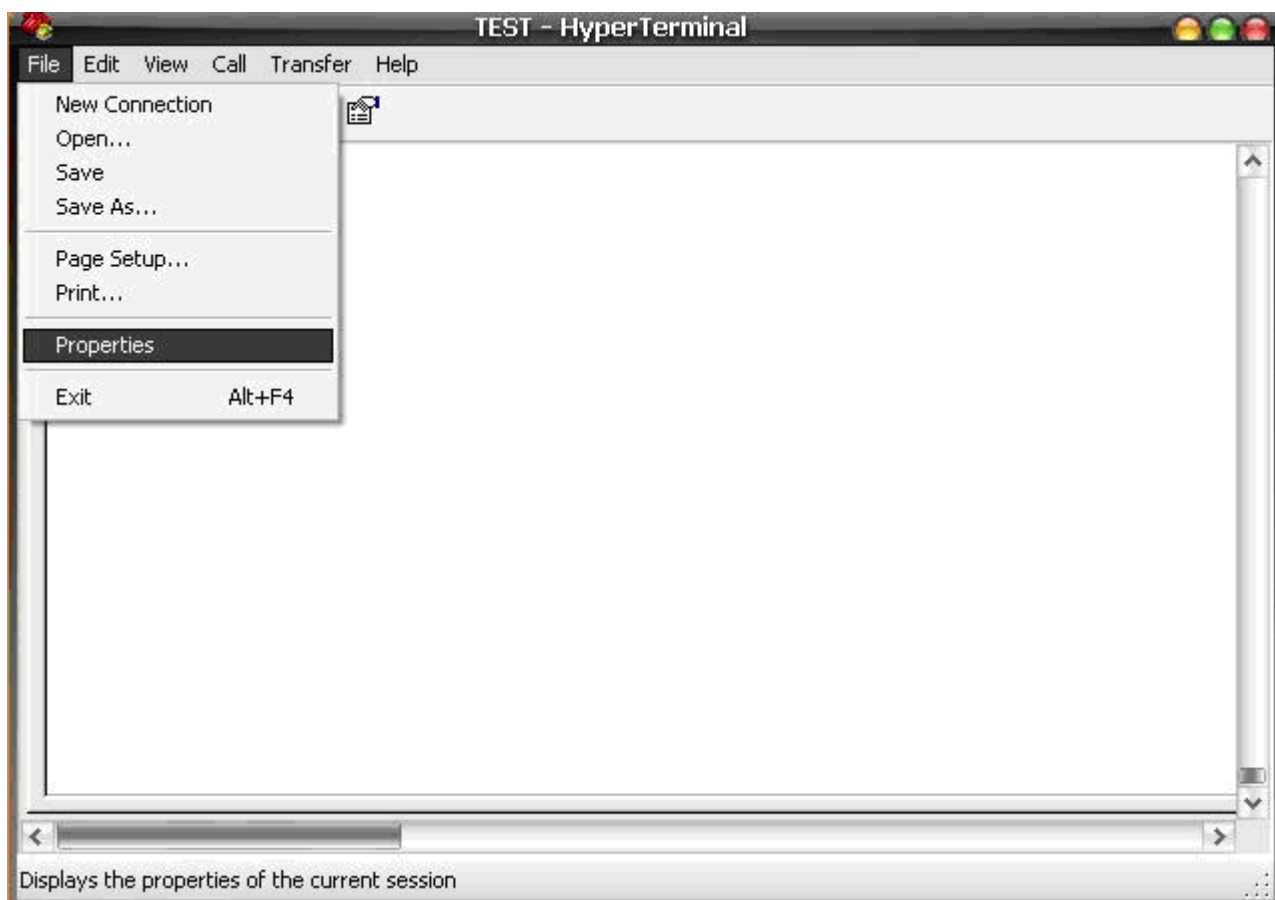
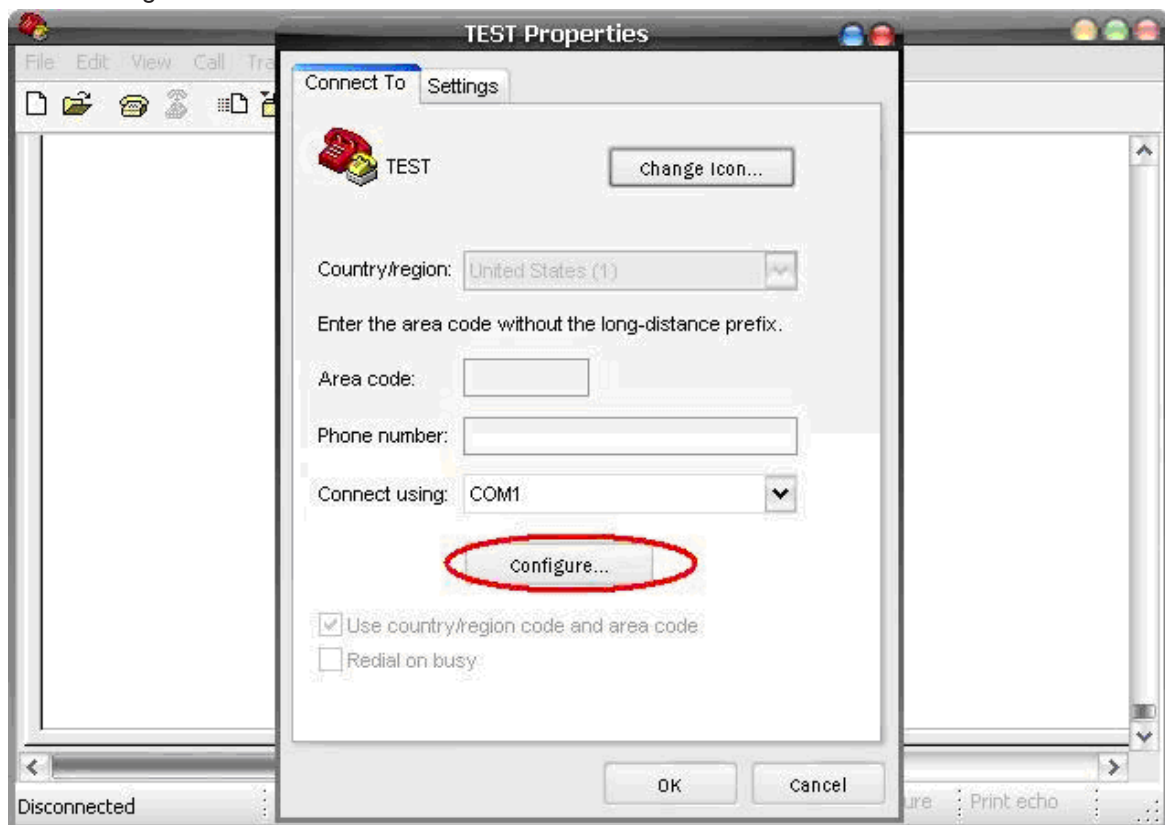


Figure 50: HyperTerminal Main Menu

4. PROGRAMMING

Click File ==> Properties

You will see the configuration frame and then click.



Choose Bits per second to 19200 and press connect.

Figure 51 : Connect To Menu

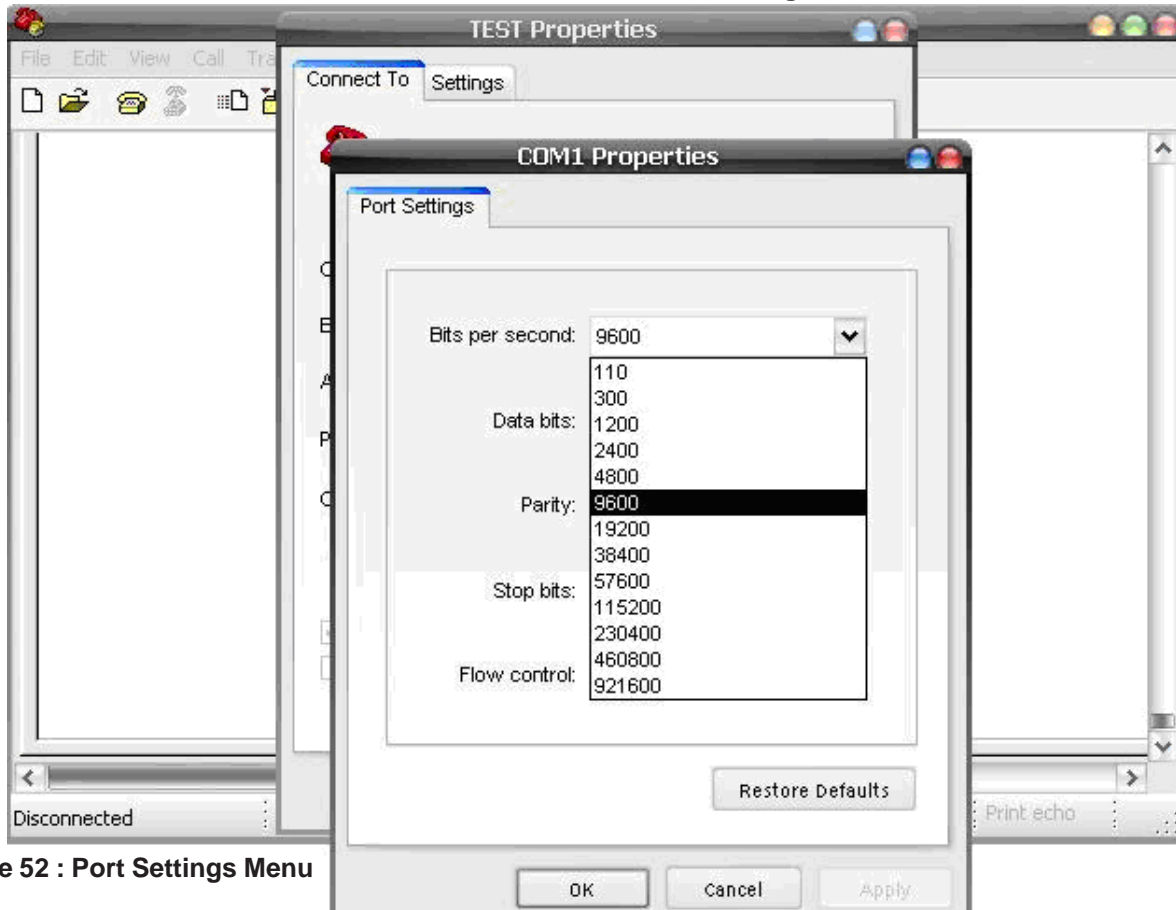


Figure 52 : Port Settings Menu

Second, you go to the menu of the Integrated System "Download/Upload Setup" then select ==> "Update Firmware" and then press Set. Now you will see message in Hyper Terminal.

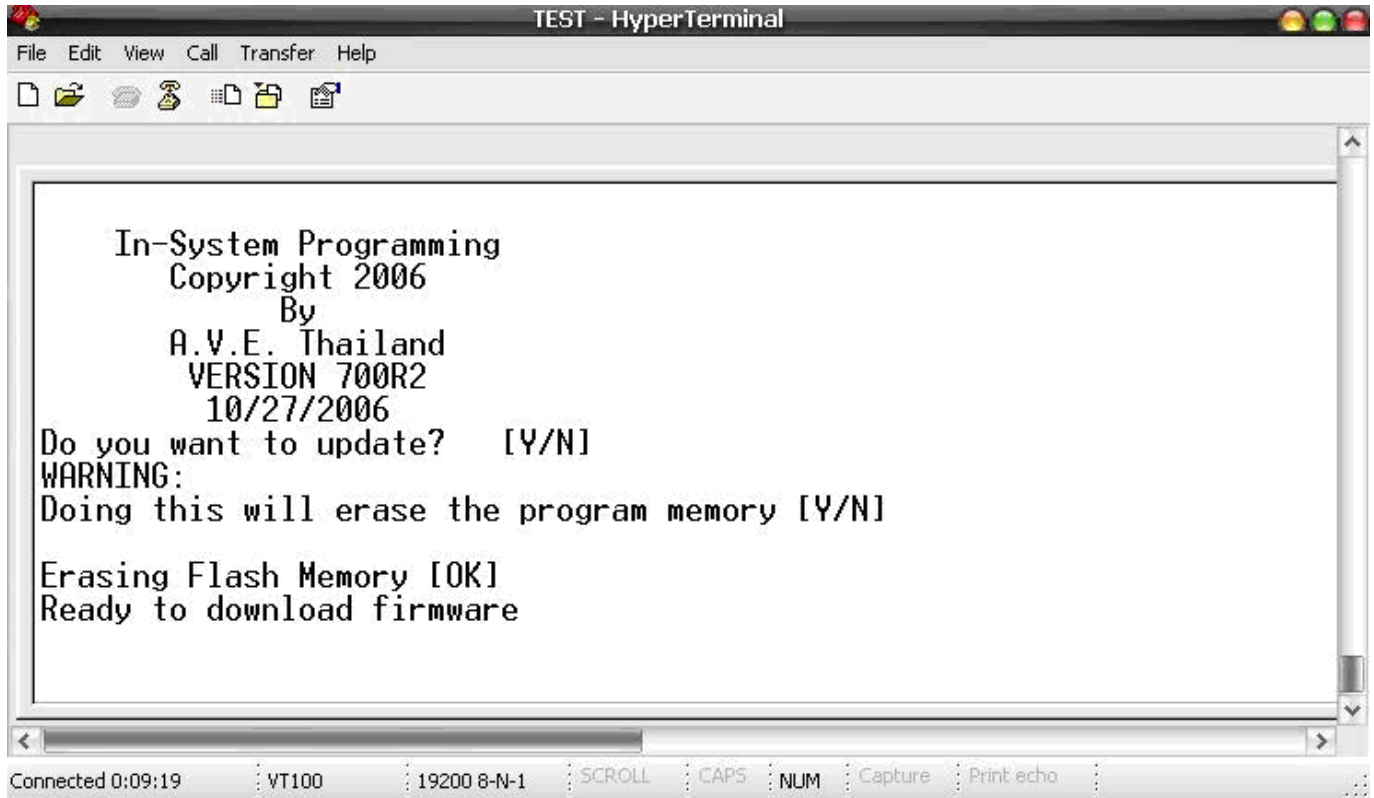


Figure 53: In-System Programming Display

"Do you want to update? [Y/N]"
 Press "Y" to accept update.
 You will see message warning again.
 "Doing this will erase the program memory [Y/N]"
 Press "Y" again to accept update.

NOTE: Pressing "Yes" again will permanently erase the entire program memory and the Integrated System will not function until firmware is loaded. Make sure you have the proper firmware file ready or the Integrated System will be rendered useless.

Finish erasing the program memory step.

Next, you have to send file to update firmware by click on "Transfer Menu" and select "Send Text File" and wait until finished programming. Progress dots will be displayed on the terminal program until finished and takes approximately 2.5 minutes.

NOTE: If for some reason you are disconnected from the Integrated System during downloading, power is lost to the Integrated System or PC or the firmware update does not finish for any reason you can repeat the procedure above again. The bootstrap loader never is erased and will always request for a valid firmware update until achieved.

To do this just power up the Integrated System or press reset while the terminal program is connected and you will see the prompt messages as above window.

4. PROGRAMMING

4.11 HELP

“HELP” on the main-menu provides a quick reference guide of the functions of the “Up” and “Down” and “Set” buttons.

Key Definitions :		
UP/DOWN	--	Change value
SET	--	Enter change mode
		Save change
		Go to position
UP AND DOWN	--	Save string input
UP AND SET	--	Erase character

Figure 54: HELP Sub-Menu

5. DVR PROGRAMMING

5.1 DVR FRONT PANEL PROGRAMMING KEY



Figure 55: Front Pannel Push Buttons of DVR Programming Menu

VIDEO / PHOTO CAPTURES

1. Integrated System will generate an alarm to close the contact of the CAPTURE switch to start capure video or photo.
2. For Manual recording Press “CAPTURE” button direct on DVR Front Panel Programming Key.
3. Motion Detection will also generate an alarm for DVR to start capture video or photo.
4. Press “DISPLAY” button to select video source between Video 1 and Video 2

Notes: Video 2 No Connection and blue screen will come out.

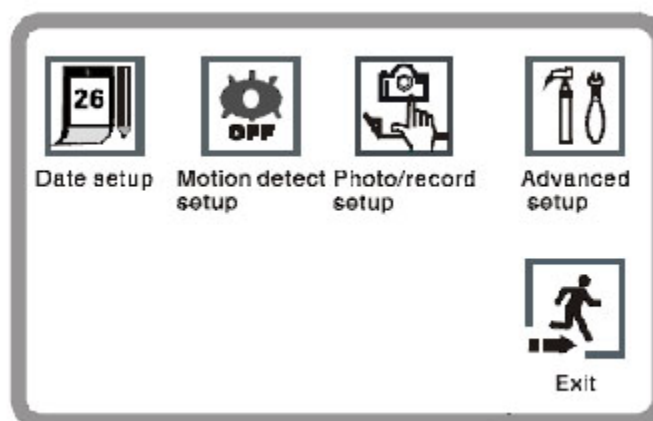
5.2 DVR PROGRAMMING

Press the “Menu” button while DVR is powered on, ensure DVR was not on recording or photo taking. The DVR Setup Mode will pop up as below:

5. DVR PROGRAMMING

DVR SETUP MODE

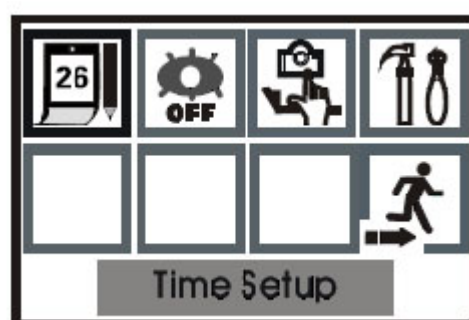
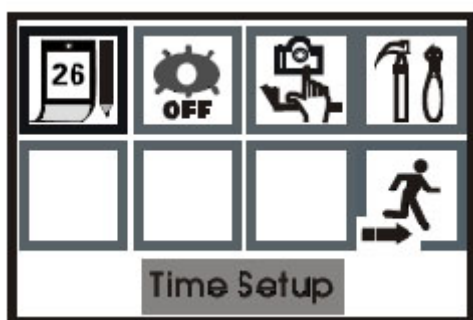
Figure 56: DVR SETUP Mode



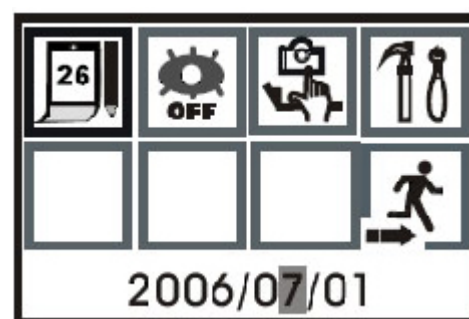
Notes: Video Capture mode will take about 20 second continuously and is not programmable or stoppable.

TIME/DATE SETUP

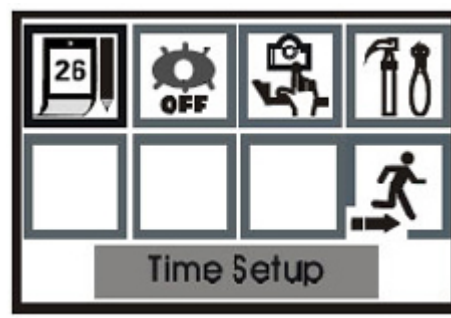
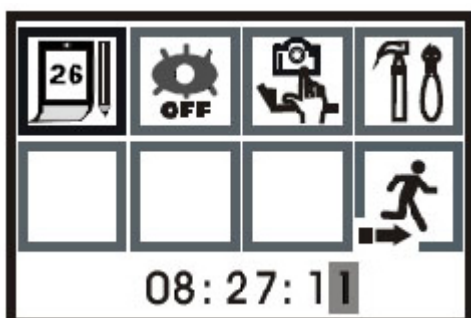
1. Press "Menu" button to Setup Mode.
2. Press "LEFT" or "RIGHT" button to move the cursor to Time Setup and then press "OK" button.



3. Press "RIGHT" button to move the cursor forward and "LEFT" button to backward the cursor.
4. Press "UP" or "DOWN" button to increase or decrease that cursor is on.



5. Press "RIGHT" button to move the cursor until Time menu come up. and do as items 3 and 4.
6. When setup complete, Press "OK" button to return to the Setup Mode.



7. Exit Setup Mode, Press "LEFT" or "RIGHT" button to move the cursor to Exit and press "OK" button or press "MENU" button to Exit off directly.

MOTION DETECTION SETUP

When power up, if the SD card is not inserted to DVR. The motion detect feature will be enabled automatically. To disable the motion detection in this case for avoid DVR to start record when motion detected in the video. DVR provided shortcut key to enable or disable directly while DVR on view mode.

QUICK SETUP

Press "UP" button to toggle Motion Detection to be ON/OFF, EYE is symbol for motion detection mode is operated.

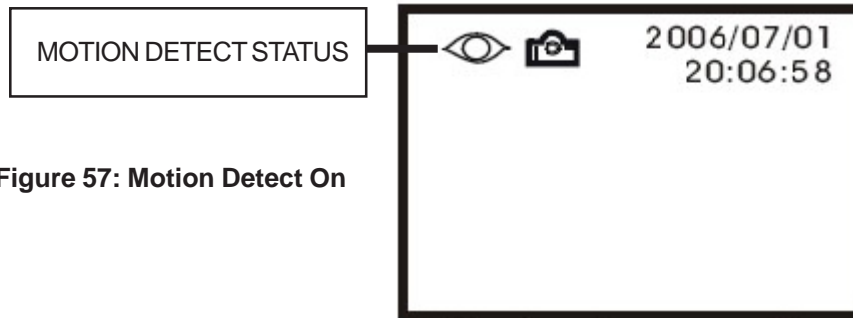


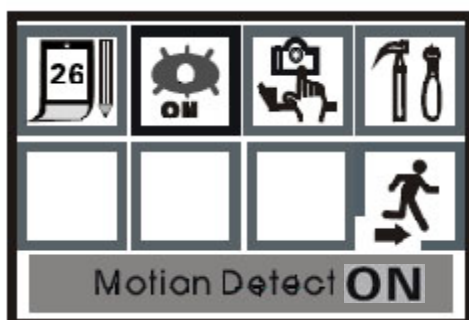
Figure 57: Motion Detect On



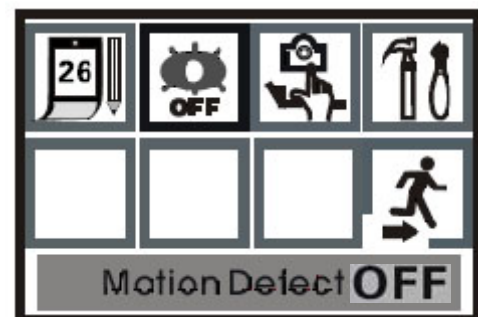
Figure 58: Motion Detect Off

MENU SETUP

1. While DVR was on View Mode, Press "Menu" button to access Setup Mode.
2. Use "LEFT" or "RIGHT" button to control the cursor to Motion detection menu.
3. Press "OK" button to toggle ON/OFF motion detection.



Motion Detect ON



Motion Detect OFF

5. DVR PROGRAMMING

RECORD VIDEO/PHOTO SETUP

Recording format available for AVI 320x240 pixels @10 fps and compressed in Motion JPEG (MJPEG) and JPEG Resolution 640 x 480 pixels for photo.

QUICK SETUP

While on View Mode onscreen, Press “DOWN” button to toggle between Video or Photo Camera.

Figure 59: AV Setup status with Motion On

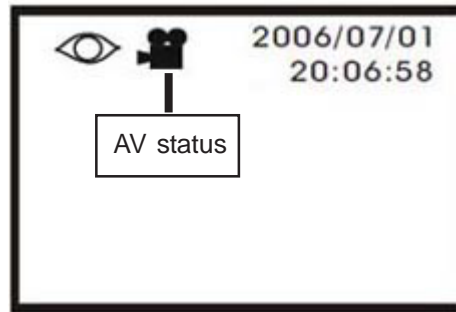
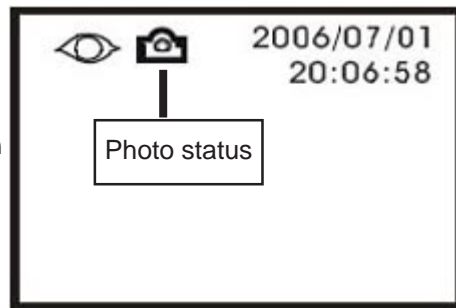


Figure 60: Photo Setup status with Motion On



MENU SETUP

1. Press “Menu” button to access Setup Mode.
2. Use “LEFT” or “RIGHT” button to control the cursor to Capture Format menu.
3. Press “OK” button to toggle Video / Photo camera

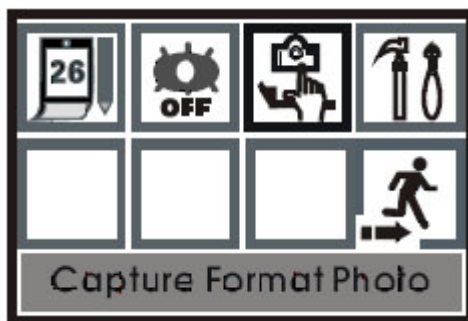
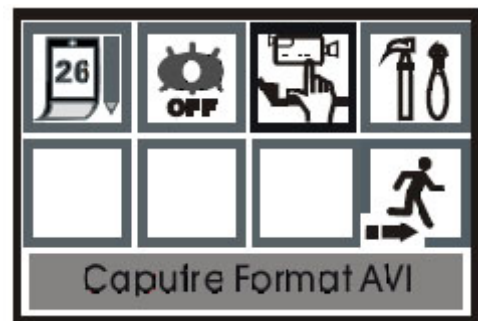


PHOTO CAPTURE



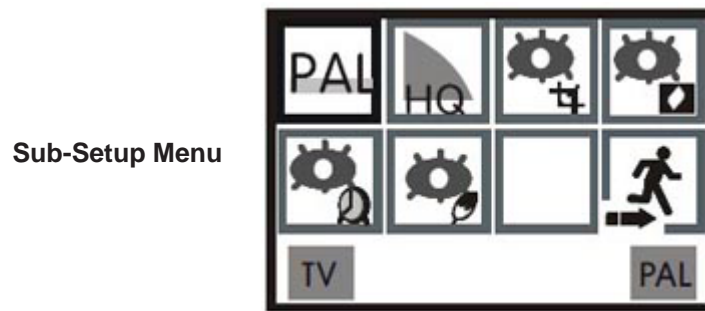
VIDEO CAPTURE

ADVANCE SETUP MENU

This is system setup menu including:

- | | |
|------------------------------|--------------------|
| 1. Standard Video format | NTSC/PAL |
| 2. Video Quality Setup | HIGH/LOW |
| 3. Motion Area Detection | LARGE/MEDIUM/SMALL |
| 4. Motion Detect Count | 1/3/5 |
| 5. Motion Detection Interval | 1S/3S/5S |
| 5. Motion Sensitivity | 01-99 |

Press "Menu" button to access Setup Mode. Use "LEFT" or "RIGHT" button to move the cursor to Setup Menu, then press "OK" button to enter to Sub-Setup Menu.



Use "LEFT" or "RIGHT" button to move the cursor to the desired menu.

Standard Video Format menu : Press "OK" button to toggle PAL and NTSC format.

Video Quality Setup menu : Press "OK" button to toggle High and Low video quality.

Motion Area Detection menu : Press "OK" button to Motion Detect Area Setup, then press "LEFT" or "RIGHT" button to choose detect area ,**Large/Medium/Small**, and then press "OK" button. Press "Up", "Down", "Left", "Right" button to move detect area and then press "OK" button to exit Detect Area Setup.

Motion Detect Count menu : Motion Detect Count setup means the count number setup which take in one motion detect. (can set 1/3/5 pics)

Press "OK" button to choose count number.

Motion Detection Interval menu : Motion Detect Interval means that you can set 1/3/5 seconds interval between two motion detect.

Press "OK" button to switch time.

Motion Sensitivity menu : The Motion Detect sensitivity range is 01-99. The smaller the value, the more sensitive ;the bigger the value, the less sensitive.

To exit Setup Mode, Press "LEFT" or "RIGHT" button to move the cursor to Exit and press "OK" button or press "MENU" button to Exit off directly.

PLAYBACK MODE

Press "MODE" button to toggle to Playback Mode, DVR will start to preview all recorded videos and taken photo. Video and Photo can be browsed by one or sixth thumbnail. It can be deleted one by one, delete all, The SD Card can be formatted in the playback mode.

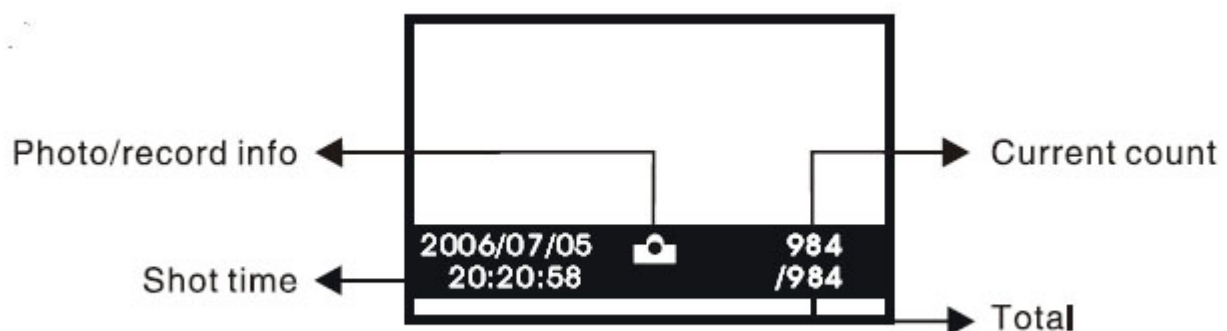
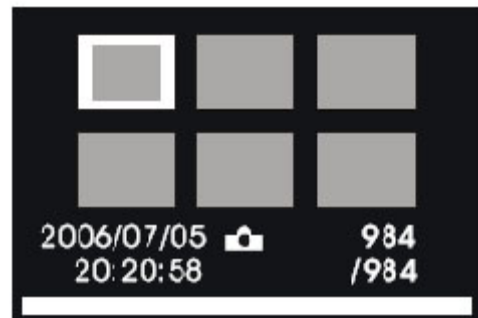
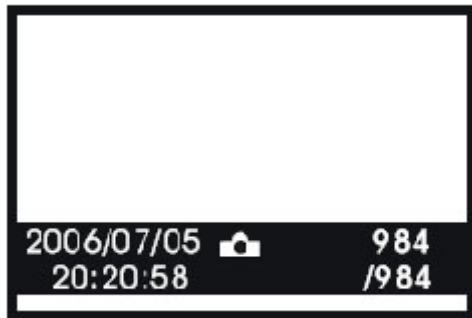


Figure 61: Image Information Page

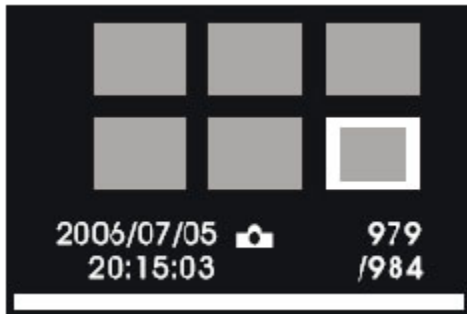
DVR PROGRAMMING

BROWSE SIXTH THUMBNAIL PHOTO

1. Press "MODE" button to toggle to playback mode
2. Press "OK" button to File Browsing Menu.



3. Press "LEFT" or "RIGHT" button to move the highlight to choose the photo or video is recorded.
4. Press "OK" button to view Photo or Video with full screen and press "DOWN" button to play video file.



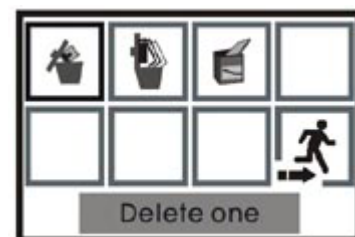
5. Press "MODE" button to return View Mode.

DELETE FILES

1. Press "Mode" button to enter Playback Mode, then press "LEFT" or "RIGHT" button to move the cursor for select file.
2. Press "Menu" button to enter to Delete menu, then press "LEFT" or "RIGHT" button to select deleting ONE/ ALL/ FORMATE menu, and then press "OK" button to desired menu.

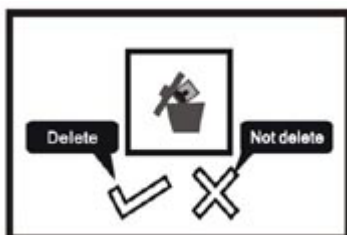


Playback Mode



Delete Menu

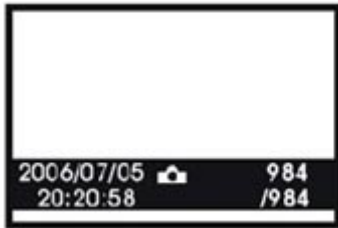
3. Press "LEFT" or "RIGHT" button to enable or disable delete, then press "OK" button to confirm.



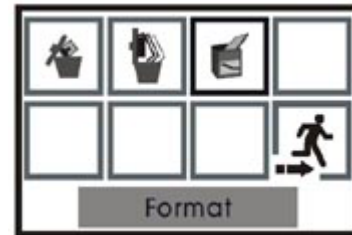
Delete?

FORMAT SD CARD

1. Press "Mode" button to toggle to Playback Mode, then press "Menu" button to enter to Delete Mode.
2. Press "LEFT" or "RIGHT" button to Format menu, then Press "OK" button to enter format menu.

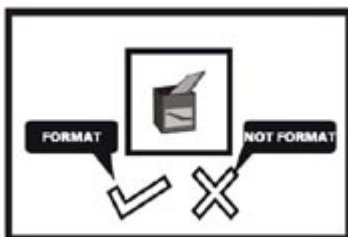


Playback Mode



Format Menu

3. Press "LEFT" or "RIGHT" button to enable or disable format the SD Card, then press "OK" button to confirm.



Format?

Notes : Doing this you may lose all files.

CHOOSE FOLDER

1. Press "Mode" button to toggle to Playback Mode.
2. Press "CAPTURE" button to choose the folder, then press "UP" or "DOWN" button to select the folder.



Playback Mode



Select Folder Menu

3. Press "OK" button to enter the folder.



Photo in Folder

DVR PROGRAMMING

5.3 CAMERA OPERATION MENU

1. Press "Menu" button, then menu page 1st will pop up, and then press again menu page 2nd will pop up. Press "Menu" button again to exit off menu.
2. Enter the menu, press "Tele" or "Wide" button to choose menu up or down, press "Near" or "Far" button to choose the function of menu.
3. The default of Focus is Manual Focus.
4. Enter the automatic focus mode, you can exit it to press "Near" or "Far" button then return to the automatic focus mode by pressing "Tele" or "Wide" button.
5. Enter the menu to choose "Reset" this systems will reset to factory default.

MENU	
LANG:	ENG/CHINESE
FOCUS:	AUTO/MANUAL/KTCL
ZOOM:	ON/OFF
LOCK:	ON/OFF
ADDR:	001-256

Figure 62: 1st Page Menu of Camera

WB:	AUTO/OUT DOOR/IN DOOR/LAMP
IRIS:	AUTO/FIX/NIGHT/MOVE
AGC:	ON/OFF
DE:	OFF/OFF
BAUD:	2400

Figure 63: 2nd Page Menu of Camera

APPENDIX A

PROBLEM SOLVING GUIDE

NO DATA ON-SREEN

1. Press the "Reset" button on the Integrated System front panel.
2. Incorrect unit selected in the DEVICE SELECT menu.
3. Data cable is miswired.
4. Data cable is too long or did not use shielded cable.

PROBLEMS WITH RG2RS

1. Check the cable to the unit.
2. If Integrated System was working and stopped, power cycle the system. Turn off the device, unplug the power to the RG2RS, and unplug the power to the Integrated System. Now power up the system, plug in the Integrated System and the RG2RS. The data should re-appear.
3. Check the cable between the Integrated System and the RG2RS.

NO VIDEO ON MONITOR

1. Integrated Speed Gun System not plugged into power.
2. Camera lens covered.
3. LCD brightness too low.

FUNNY CHARACTERS OR GARBAGE ON SCREEN

1. Power disconnected for too long and memory is lost.
2. Lightning strike, power line noise or power surge.
3. RG2RS make sure data cable is plugged in correctly.
4. Ground and Data wires are reversed. Verify correct DB-9 cable wiring.

HOW TO DO A MASTER RESET ON INTEGRATED SYSTEM

1. Press and hold in simultaneously the “Down”, “Up” and “Set” buttons.
2. While holding those three buttons in, press and release the “Reset” button and then release the other three buttons.
3. This will display the copyright notice.
4. Restores the Integrated System to all the factory default settings.

DVR PROBLEM SOLVING

NO VIDEO OUTPUT WHEN POWER UP THE SYSTEMS

SD card may corrupted and cause DVR cannot start up. Please remove the SD Card and insert brand new into and power up again.

VIDEO NOISY AND JITTERING

Requirement for re-charger battery

SD CARD CORRUPTED

While the DVR is recording do not power down the DVR or remove the SD card to avoid SD Card Corruption.

HARD ALARM OUTPUT

APPENDIX B

The Integrated System provides Alarm 1 output port to trigger the internal DVR. There is also Alarm 2 in the Alarm menu. The Integrated System can be programmed to trigger an external DVR to record or an IR Illuminator to turn on. See the Alarm section for proper programming of this 2nd user alarm output. The Integrated System alarm output that is rated at 12VDC @ 20mA maximum.

The following are some basic circuit designs to take advantage of the alarm output option of the Integrated System.

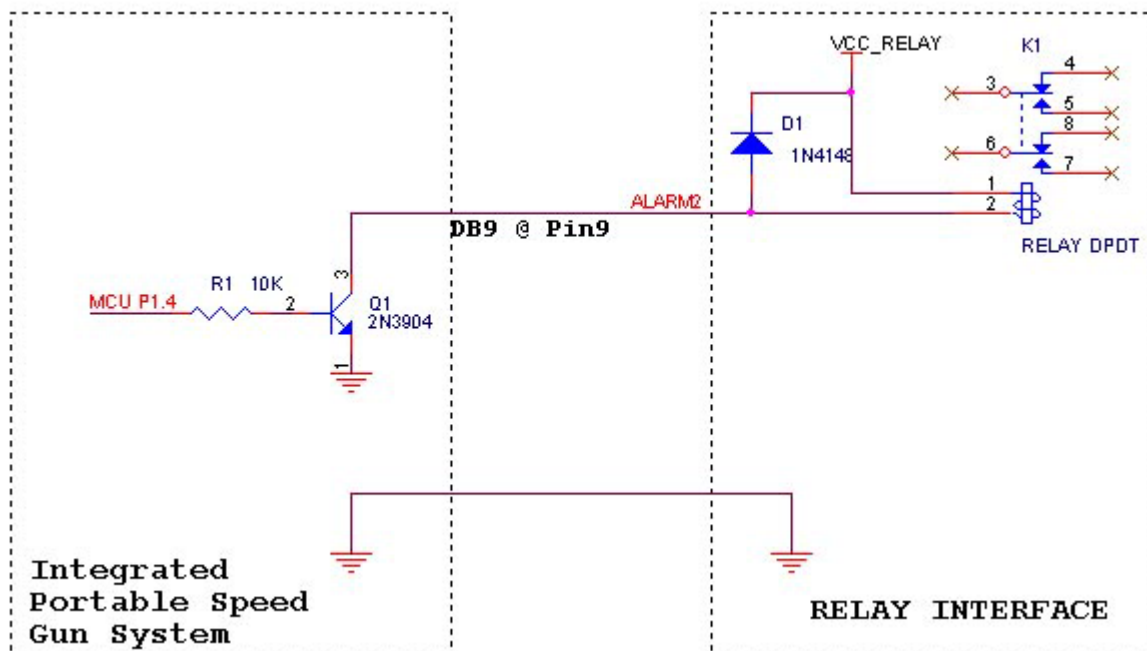


Figure 64: Hard Alarm Output

STALKER II SDR



Figure 65: Integrated Portable Speed Gun System Interface with Radar Gun (Stalker II SDR)

1. Turn on Integrate Portable Speed Gun System, Verify LCD Display for DVR motion detection, if it was enabled then press "Up" button on DVR Programming Key to disable.
2. Verify the SD Card is presented on LCD Display, So ready for recording.
3. Verify the DVR Recording Mode was Photo or Video. Press "DOWN" button for Video Mode
4. Setup Time /Date for Integrated System and DVR

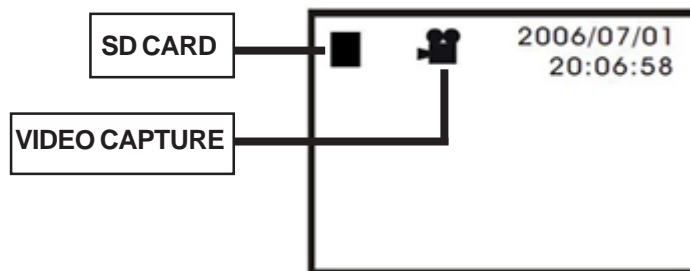


Figure 66: DVR preparation for the configuration of the system.

5. To main programming menu and select the Radar Gun Interface.

- ☒ **DEVICE SELECT**
- ☐ **SCREEN SETUP**
- ☐ **TEXT DISPLAY**
- ☐ **COMMUNICATION**
- ☐ **EXCEPTION REPORT**
- ☐ **ALARM OUTPUTS**
- ☐ **TEST/DEMO MODE**
- ☐ **DOWNLOAD/UPLOAD SETUP**
- ☐ **HELP**

step 1.

- ☐ **GENERIC**
- ☐ **GPS INTERFACE**
- ☒ **RADAR GUN**
- ☐ **LASER GUN**
- ☐ **ALCOHOL METER**
- ☐ **EXIT**

step 2.

- ☐ DECATUR
- ☐ KUSTOM
- ☐ MPH PYTHON
- ☐ MPH Z35
- ☐ MUNICIPAL TS-4
- ☐ RG2RS
- ☒ -----NEXT PAGE
- ☐ EXIT

step 3.

- ☐ -----PREVIOUS PAGE
- ☐ STALKER DUAL SL
- ☐ STALKER SPORT
- ☒ STALKER II SDR
- ☐ STALKER ATR
- ☐ TARGETRON RAPID FIRE
- ☐ TRIBAR MUNI QUIP
- ☐ EXIT

step 4.

6. Verify exception report.

Examples of detect speed over 120 KPH.

EXCEPTION STRING = TARGET

RANGE = 0000.00-0.120.00

OPERATOR = OUT

- ☐ DEVICE SELECT
- ☐ SCREEN SETUP
- ☐ TEXT DISPLAY
- ☐ COMMUNICATION
- ☒ EXCEPTION REPORT
- ☐ ALARM OUTPUTS
- ☐ TEST/DEMO MODE
- ☐ DOWNLOAD/UPLOAD SETUP
- ☐ HELP

step 1.

- ☐ EXCEPTION HISTORY
- ☒ SET EXCEPTION
- ☐ OUTPUT ON
- ☐ TIME STAMP ON
- ☐ EXIT

step 2.

- ☐ EXCEPTION NO. 1
- ☐ DISPLAY ON
- ☐ OUTPUT ON
- ☐ HISTORY BUFFER ON
- ☐ SCROLL MATCHING OFF
- ☒ EXCEPTION STRING
- TARGET
- ☐ RANGE
- 0000.00 - 0120.00
- ☐ OPERATOR OUT
- ☐ EXIT

step 3.

7. Verify Alarm Setup is the same as below:

- ☐ DEVICE SELECT
- ☐ SCREEN SETUP
- ☐ TEXT DISPLAY
- ☐ COMMUNICATION
- ☐ EXCEPTION REPORT
- ☒ ALARM OUTPUTS
- ☐ TEST/DEMO MODE
- ☐ DOWNLOAD/UPLOAD SETUP
- ☐ HELP

step 1.

- ☐ ALARM NO. 1
- ☐ ALARM TRIGGER 1
- ☐ NORMAL STATE NC
- ☒ ALARM DURATION PULSE
- ☐ FLAG TYPE FLASH *
- ☐ FLAG DURATION 002
- ☐ TRIGGERED TEXT
- ☐ ALARM TYPE DWELL
- ☐ EXIT

step 2.

8. Self test with radar gun demo. Run this demo mode, The Radar information included TARGET , PATROL, LOCK virious range of data. Press "RESET" button to clear demo.

- ☐ DEVICE SELECT
- ☐ SCREEN SETUP
- ☐ TEXT DISPLAY
- ☐ COMMUNICATION
- ☐ EXCEPTION REPORT
- ☐ ALARM OUTPUTS
- ☒ TEST/DEMO MODE
- ☐ DOWNLOAD/UPLOAD SETUP
- ☐ HELP

step 1.

- ☐ PORT 1 TEST
- ☐ DATA CAPTURE
- ☒ RADAR GUN DEMO
- ☐ VERSION ID
- ☐ EXIT

step 2.

- ☒ DEMO
- ☐ DEMO ON POWER UP OFF
- ☐ EXIT

step 3.

9 Cross Hair Setup

- ☐ DEVICE SELECT
- ☐ SCREEN SETUP
- ☒ TEXT DISPLAY
- ☐ COMMUNICATION
- ☐ EXCEPTION REPORT
- ☐ ALARM OUTPUTS
- ☐ TEST/DEMO MODE
- ☐ DOWNLOAD/UPLOAD SETUP
- ☐ HELP

step 1.

- ☐ SCREEN BLANK 20
- ☐ DISPLAY LINES 10
- ☐ DISPLAY FORMAT TOP
- ☐ LINE COMPRESS OFF
- ☐ SPACE COMPRESS OFF
- ☐ LEFT JUSTIFIED OFF
- ☐ SCROLL DELAY OFF
- ☐ DISPLAY ON
- ☒ CROSS HAIR
- ☐ EXIT

step 2.

- ☒ CROSS HAIR ON
- ☐ COLOR MODE DAY
- ☐ VERTICAL DAJUST
- ☐ HORIZONTAL ADJUST
- ☐ EXIT

step 3.

10. Camera Setup for moving target.

LANG	ENG
FOCUS:	MANUAL
ZOOM:	ON
LOCK:	ON
ADDR:	001-256

1st Page Menu.

WB	AUTO
IRIS	MOVE
AGC:	ON
DE:	OFF
BAUD	2400

2nd Page Menu

11. Power up your radar gun interface and connect the cable to DB9 of Integrated Portable Speed Gun System.
12. Change DVR recording to Photo Mode.
13. Point the radar to the target and hold the trigger to read the speed of the target. if the range of speed exceed the the range is more than in the setup then Integrated System will generate alarm for DVR to capture the image and record to SD CARD.

Notes: 1. This Stalker II SDR is Radar Gun can be tested in house by using "Sound Fork". Press "TEST" button on Radar Gun. There will be no any RS232 Data Output.

2. Exception String Default is "LOCK" to maintain radar gun works as normal mode. Operator will pull the trigger to enable radar gun to read the target speed, and press "LOCK" on the front panel of radar gun to get the lock data. This lock data will be sent sequentially if user is not clear the lock data. To void Integrated System generate many alarms as DWELL, please verify alarm output for alarm type is TIMED. Integrated System will generate alarm only 1 times untill Lock data is changed or cleared.

MPH-Z35 RADAR GUN



MPH-Z35 Interface Cable (AVE P/N: 021-507-SF)

Figure 67: MPH-Z35 RADAR Gun with RS232 Connection

1. Ensure yours MPH Z-35 included RS232 Connector. This is MPH Option, So advise MPH Industry to enable RS232 Connection, and then Connect the RS232 Data Cable which accomudated Integrated Portable Speed Gun System Coonect Power cable for 12VDC 1%, Verify Motion Dection or press "UP" button on DVR Programming Key to disable.
2. Verify the SD Card is presented on LCD Display, So ready for recording.
3. Verify the DVR Recroding Mode was Photo or Video. Press "DOWN" button for Video Mode
4. Setup Time /Date for VSI-Pro Mini and DVR

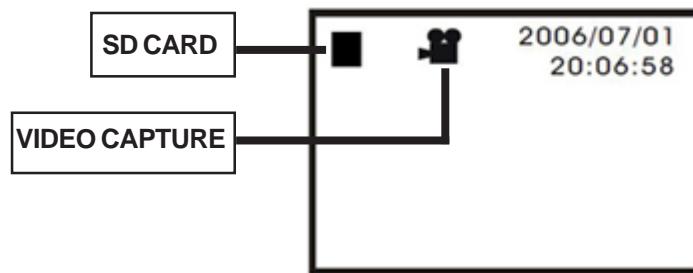
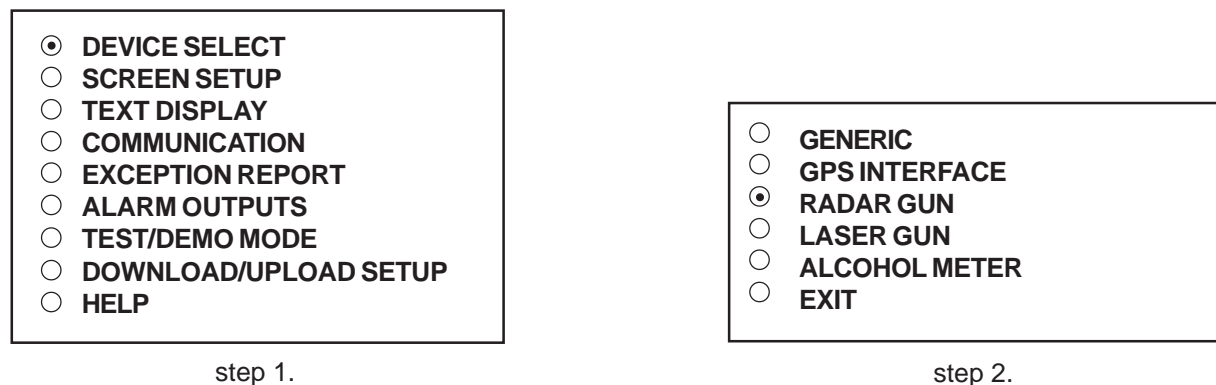


Figure 68: DVR preparation for the configuration of the system.

5. To main programming menu and select the Radar Gun Interface.



6. Verify setups, (See Stalker II SDR items 6-10)
7. Power up your radar gun interface and connect the cable to DB9 of Integrated Portable Speed Gun System.
8. Change DVR recording to Photo Mode. Video Mode is easier but it will recording for 20s unstopable, then can change to Photo Mode later.
9. Point the radar to the target and hold the trigger to read the speed of the target. if the range of speed exceed the the range is more than in the setup then Integrated System will generate alarm for DVR to capture the image and record into SD CARD.

Notes: 1. This MPH-Z35 is Radar Gun can be tested in house by using "Sound Fork". Press "TEST" button on Radar Gun. There will be no any RS232 Data Output.

2. Exception String Default is "LOCK" to maintain radar gun works as normal mode. There are 2 steps of trigger for MPH Z-35, First is enable and read target, and the next is lock target. Operator will pull the trigger into the first trigger and hold to enable radar gun to read the target speed, and pull into second to lock the target speed. if lock data is not clear by user. MPH Z-35 will keep to send out RS232 data. To avoid Integrated System generate many alarms as DWELL, please verify alarm output for alarm type is TIMED. Integrated System will generate alarm only 1 time until lock data is changed or cleared. This will prevent user to forget to clear LOCK data.

DOWNLOAD/UPLOAD SETUP USING A PC

You can use a Laptop or PC and HyperTerminal program to store configuration from a Integrated System to a file. This file can then be uploaded to other Integrated System units with the HyperTerminal Program. Use 38400,n,8,1 baud for the PC's baud rate. The Integrated System has the ability to upload or download all the programming settings and history files via a PC Windows based application, HyperTerminal Program. Customer can now be saved in a laptop for ease of service and programming. This is accomplished by using a Communication port of the laptop or a USB to RS-232 adapter.

Preparation the HyperTerminal and Integrated System for Download/Upload Setup

Integrated System Section

From the Main Programming Menu of Integrated System, press the "Up" or "Down" button to move the cursor to "DOWNLOAD/UPLOAD SETUP" and press "Set". The DOWNLOAD/UPLOAD SETUP sub-menu will appear:



Figure 69: DOWNLOAD/UPLOAD SETUP Sub-Menu

HyperTerminal Program Section

First, you have to set the baud rate HyperTerminal to 38400bps. See PC Windows below to verify proper HyperTerminal setup. Run the HyperTerminal program then Click File menu and select Properties on drop-down menu.

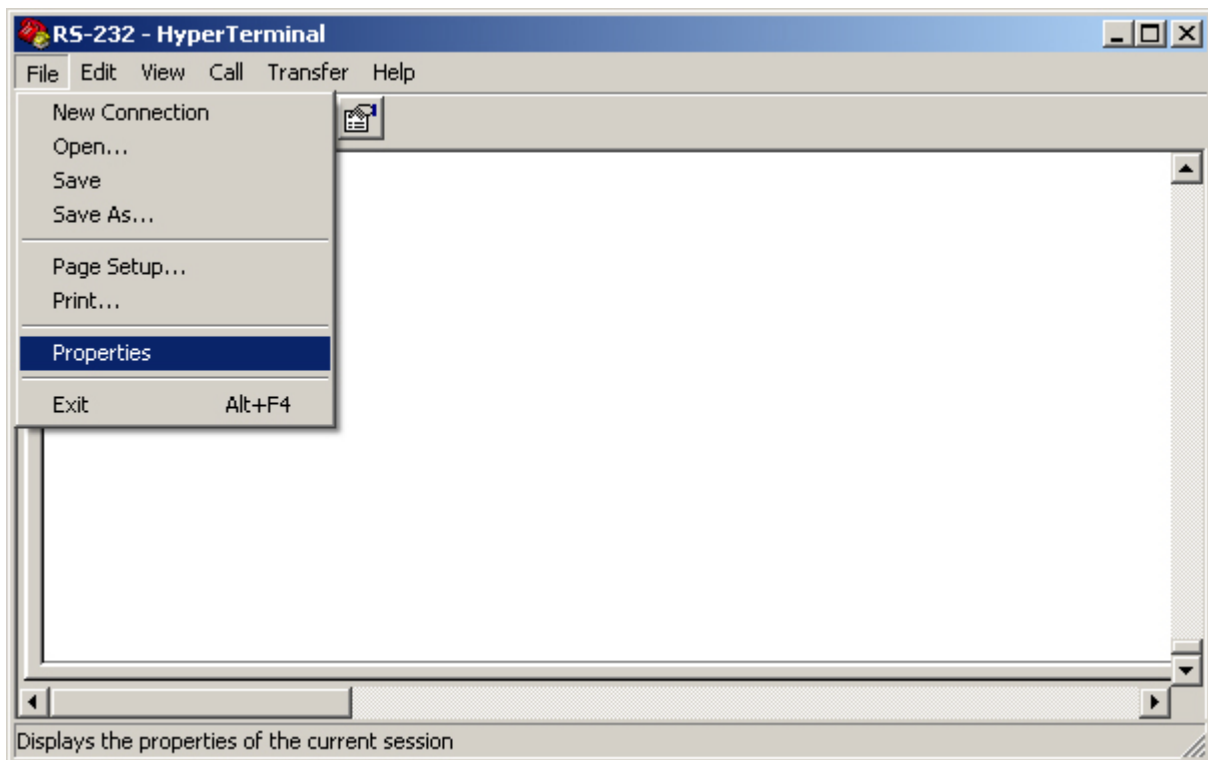


Figure 70: HyperTerminal Main Menu

You will see the Properties window then select communication port. Click the configure... button.

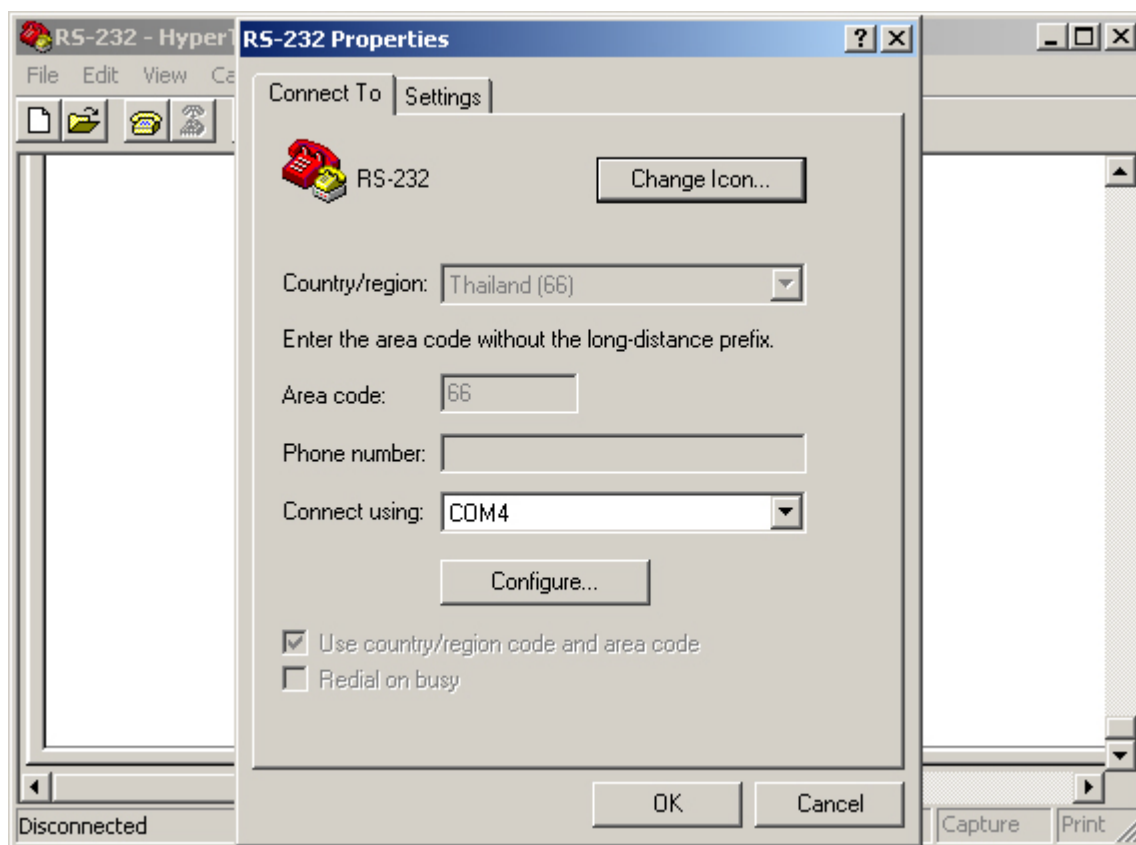


Figure 71: Connect to Menu

Choose Bits per second to 38400bps and Flow control is None.

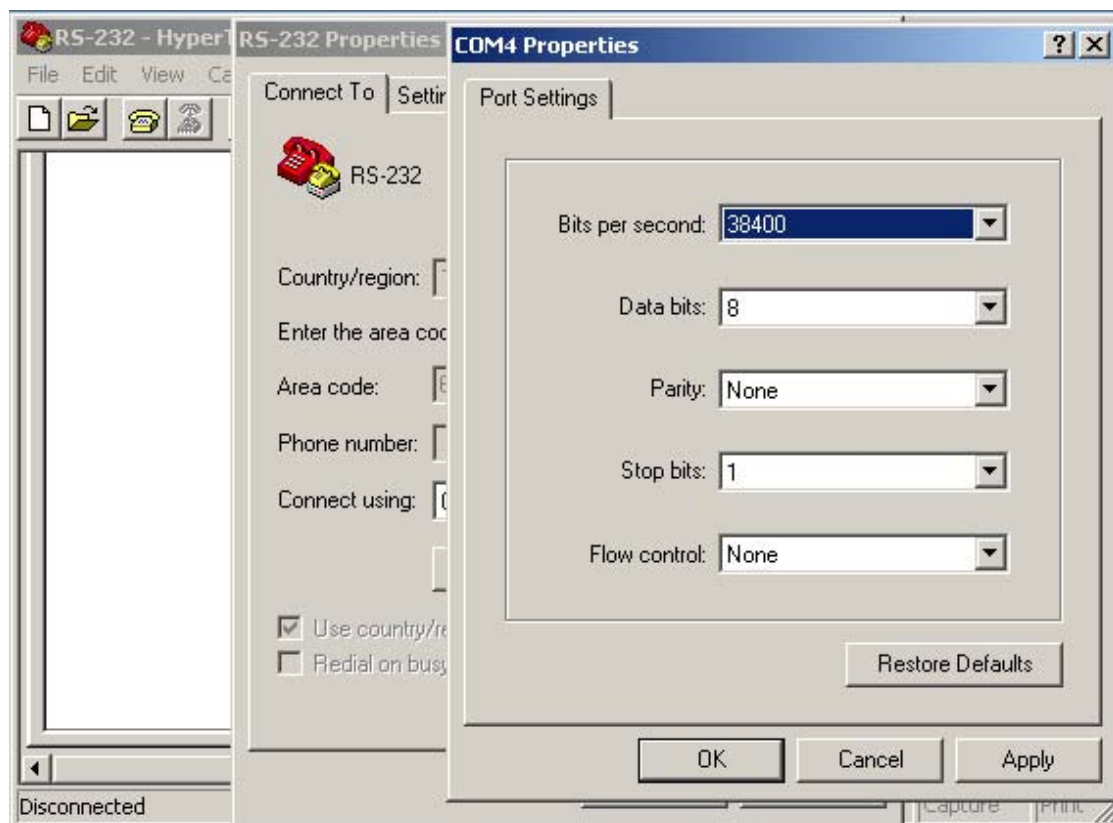


Figure 72: Port Setting Menu

UPLOAD SETUP

From the Preparation HyperTerminal for Download/Upload Setup section. Click Transfer menu and select “Capture Text..” on drop-down menu then Capture text window will appear. Set the file name and choose a location to store the configuration of Integrated System, then click Start button and then click Call menu and select Call on drop-down menu.

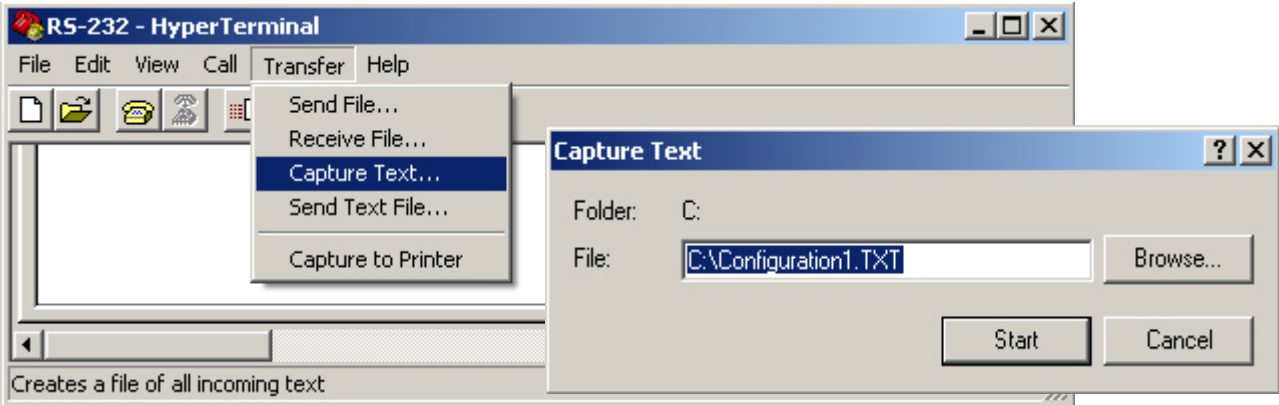


Figure 73: Capture Text Menu

From the Preparation Integrated System for Download/Upload Setup section. Press the “Up” or “Down” button to move the cursor to “UPLOAD SETUP” and press “Set”. The data transfer will begin and show count number on the screen.



Figure 74: Upload Setup Processing

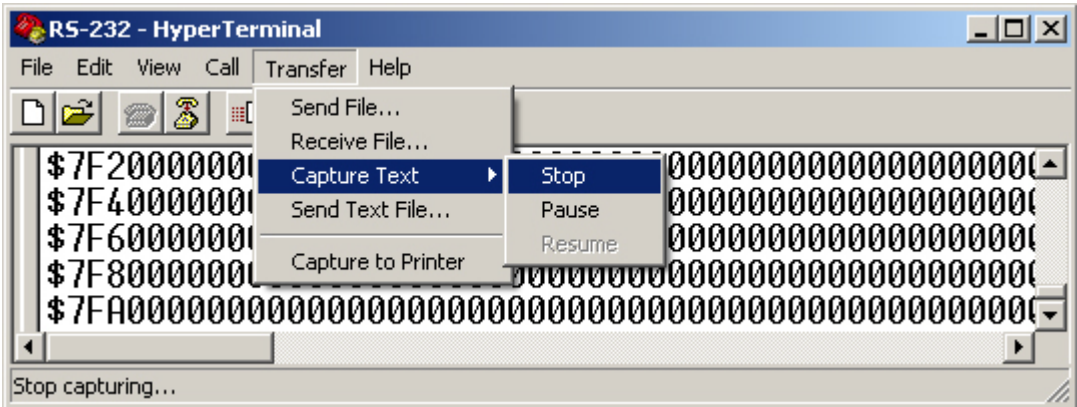


Figure 75: Capture Text Stop Menu

Now, The configuration of Integrated System is stored in that file, Configuration1.TXT. Click on Transfer menu and select Capture Text on drop-down menu then select stop menu.

DOWNLOAD SETUP

From the Preparation Integrated System for Download/Upload Setup section. Press the “Up” or “Down” button to move the cursor to “DOWNLOAD SETUP” and press “Set”.

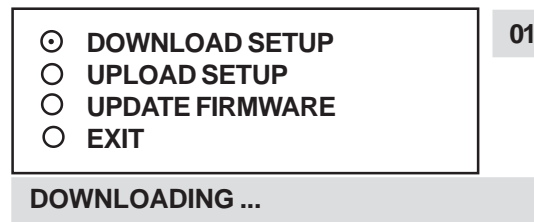


Figure 76: Download Setup Waiting

From the Preparation HyperTerminal for Download/Upload Setup section. Click Transfer menu and select “Send Text File..” on drop-down menu.

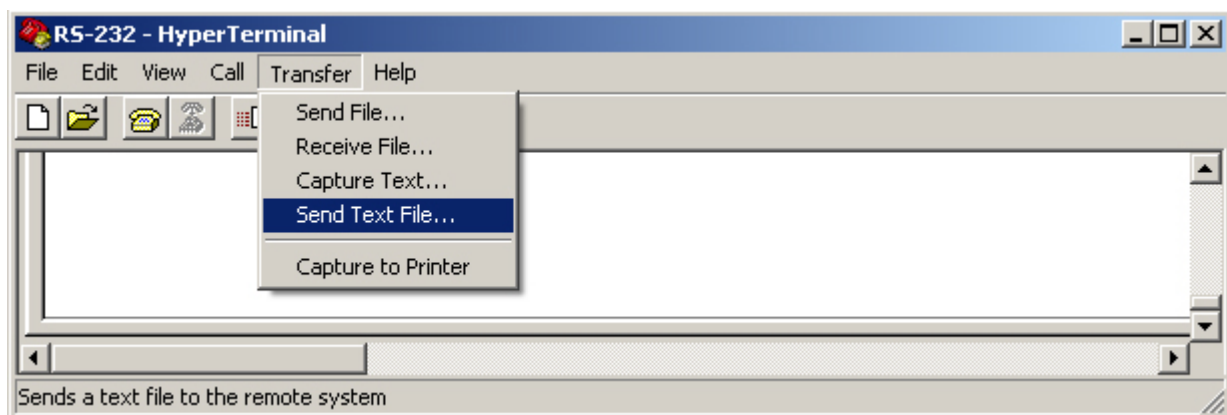


Figure 77: Send Text File Menu

Select the configuration of Integrated System that desired, then click on the Open button

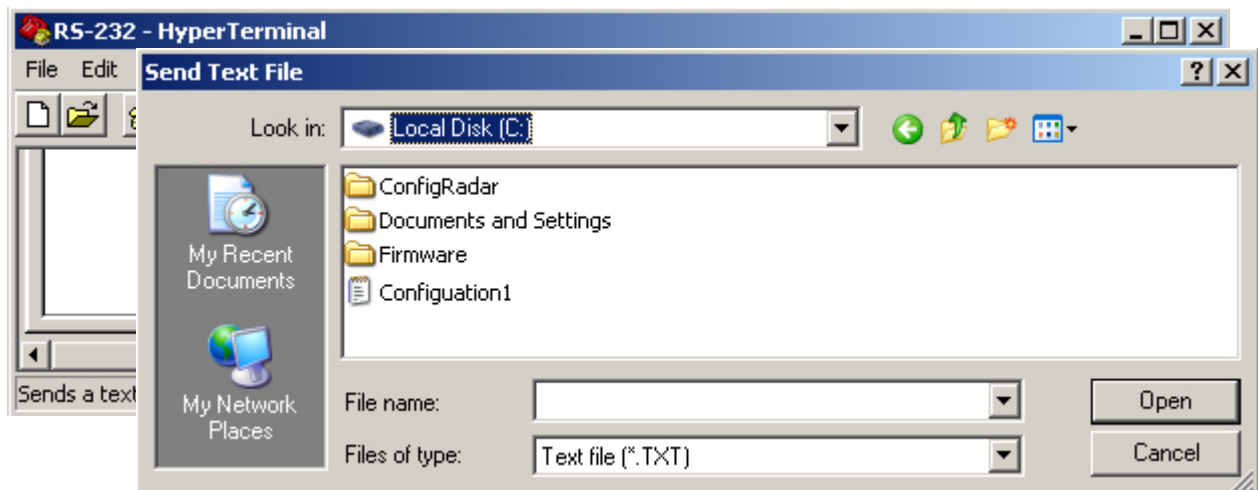


Figure 78: Select Configuration Menu

When the process of Download Setup was success. The screen of the Integrated System is show this information and reset to operation mode.

Figure 79: Successful Download Configuration

DOWNLOADING.....DONE
THE SYSTEM WILL AUTOMATIC RESET

PRINTING OPTION MODULE

Usually, The Integrated System can record data into the SD Card and use of these information must be printed out in the office only. To solve this problem, We can use the Printing Option Module instead of the SD Card allows the Integrated System to print out immediately. Printing Option Module can support the Sony Digital Photo Printer, Model DPP-FP67, or compatible printer.

Insert the Printing Option Module into the SD Card slot on the Integrated System then connect the Printing Option Module to the PictBridge port of the Sony Digital Photo Printer via USB Cable (Type A Male to Type A Female). Insert the SD Card into SD Card slot of the Printing Option Module then install the Printing Option Cable for connect between Printing Option Module and The Integrated System.

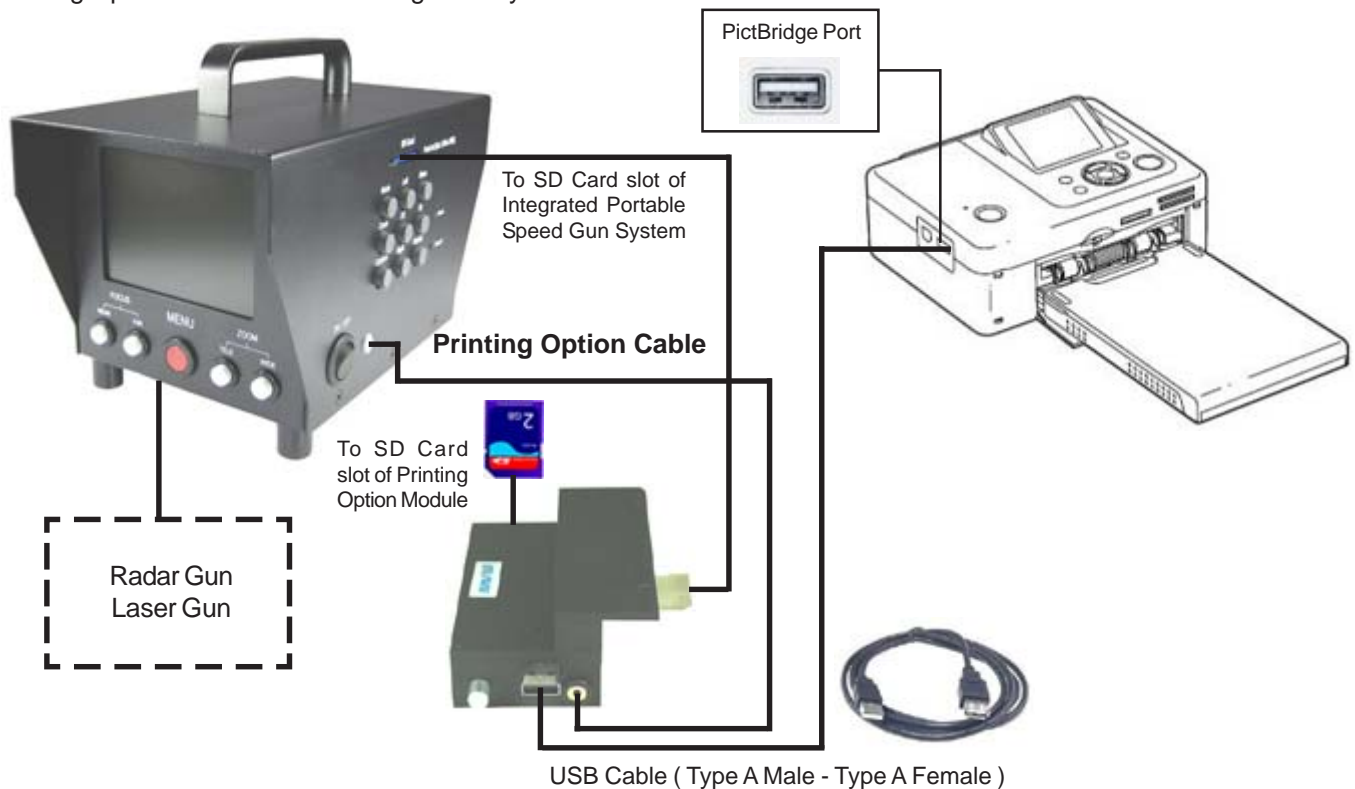


Figure 80: Connection Diagram between Printing Option Module and Integrated System

Typically, The Integrated System is connected to the SD Card via the Printing Option Module for store the data into SD Card. Pressing a button on the Printing Option Module allows the establish connection between SD Card and Sony Digital Photo Printer to print out the information desired.

This figure is a Printer Option Module which is installed into the Integrated System correctly.



WARNING!

**DOING A MASTER RESET CLEARS ALL PROGRAMMING AND
THE Integrated System DEFAULTS TO THE FACTORY SETTINGS.**

If you have difficulty entering the main-menu or you changed EPROMS in your Integrated System do the following procedure exactly: Lightly press and hold in the 3 buttons to the left ("Up", "Down" & "Set"). While holding down these buttons, press and release the "Reset" button. Then release the other buttons. Wait a few seconds and the copyright notice will appear on-screen along with the version of software installed in your Integrated System.

Upon powering up the Integrated System for the first time, if the battery is depleted the master reset should be done. However in some cases the Time/Date display may not have the correct or legible characters. If this occurs, go to the Clock programming section of the menu and reset the clock and program the correct time. The Time/Date display will then function properly and any subsequent master resets will not affect the time.

LIMITED WARRANTY**APPENDIX G****LIMITED WARRANTY*****(Terms and Conditions)***

For **1 Years** from the date of shipment, Seller warrants to Buyer that the Product is free from defects in material or workmanship **under normal use and service**. Equipment manufactured by other than Seller but furnished by Seller carries the same warranty to Buyer as Seller receives from the other manufacturer, notwithstanding any provision to the contrary. If Buyer has specified a particular manufacturer's product which is not the brand standardly supplied by Seller, Buyer shall look only to the other manufacturer's warranty and Seller shall not warrant such item.

EXCLUSIONS. Seller's warranty does not cover the following :

1. In-transit damage claims, improper handling by carrier or post office.

(Only the consignee of the shipment can file a claim with the common carrier.)

2. Damages caused by incorrect use, modification, carelessness, improper storage, hostile operating conditions, or unauthorized service, installation or repairs without proper training from the Seller.
3. Damages caused by fire, flood, lightning, collision, acts of God or other events beyond the control of Seller.
4. Products or parts thereof that have had serial numbers removed, altered or defaced.
5. Products returned without an RMA number and sales or delivery receipt showing the date of original purchase.
6. Use of components that do not meet Seller's specifications.
7. External parts such as cabinets or keypads.
8. Periodic maintenance and adjustments resulting from normal use.

WARRANTIES EXCLUDED, SELLER EXPRESSLY DISCLAIMS AND EXCLUDES ANY EXPRESS OR IMPLIED WARRANTY OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WHICH EXCEEDS OR IS INCONSISTENT WITH THE WARRANTY HEREIN EXPRESSLY SET FORTH.

NON-WARRANTY CLAIMS

In the event Buyer makes a warranty claim and Seller's warranty does not apply, Buyer shall reimburse Seller for all reasonable expenses incurred by Seller in diagnosing the installation/repair problem.

BUYER'S EXCLUSIVE REMEDIES

If the Product supplied shall fail to conform to the contract or any applicable warranty, Buyer shall immediately notify Seller of such condition and afford Seller a reasonable opportunity to inspect said Product. Seller shall, at its option, either repair or replace such nonconforming Product. Seller shall not be responsible for labor charges for removal or installation of such equipment or material or charges for transportation, handling and shipping except as provided in Seller's written service policy. No Product shall be returned without Seller's prior written consent.

SELLER SHALL NOT BE LIABLE FOR ANY SPECIAL, DIRECT INCIDENTAL OR CONSEQUENTIAL DAMAGES OF A COMMERCIAL NATURE ARISING OUT THE USE OF OR INABILITY TO USE SELLER'S PRODUCT BY REASON OF THE FACT THAT SUCH PRODUCT DOES NOT CONFORM TO THE CONTRACT OR TO ANY EXPRESS OR IMPLIED WARRANTY. SELLER'S MAXIMUM LIABILITY SHALL BE LIMITED TO THE COST OF REPAIR AND/OR REPLACEMENT OF THE PRODUCT CLAIMED TO BE DEFECTIVE OR NONCONFORMING, SUBJECT TO SELLER'S RIGHT OF REMOVAL AND RETURN OF PRODUCT.

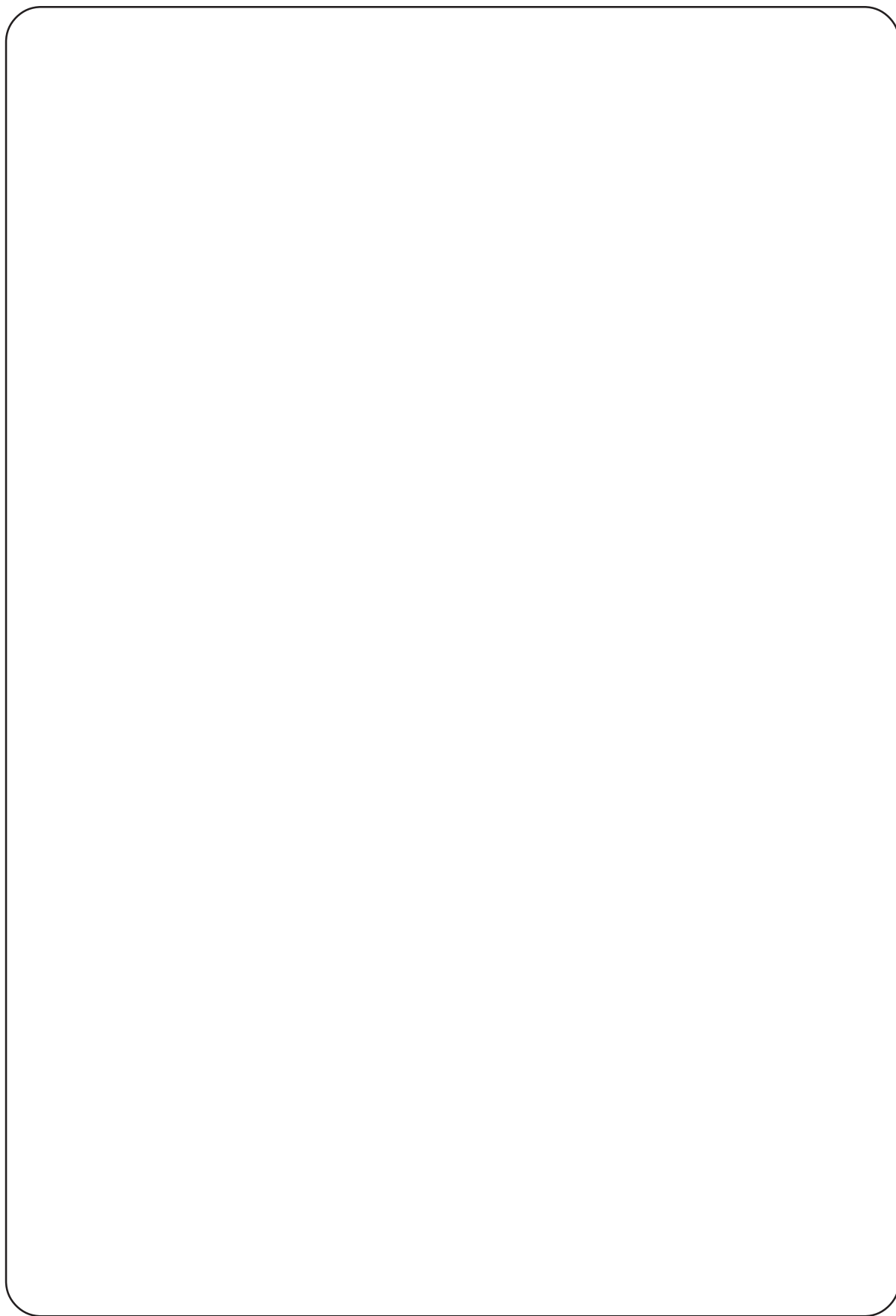
All of the foregoing constitute Buyer's sole and exclusive remedy and Seller's sole and exclusive liability for supplying nonconforming or defective Product.

RETURNS

AVE products are fully inspected and carefully packed to ensure you are delivered a quality product in good condition. If you are not fully satisfied with our product, returns of standard stocking items with no restocking fee can be made within thirty (30) days of invoice to Buyer. All such returns must have prior consent of Seller by obtaining an RMA number and must include the sales or delivery receipt showing the date of original purchase and be in an unused condition contained in its original packaging. Any other returns must have prior written consent of Seller and are subject to a restocking fee of fifteen percent (15%) and freight charges.

RMA NUMBER

The RMA (Return Material Authorization) number must be obtained by contacting Seller prior to the shipment of the product for return. The RMA number is valid only for 15 days from the date of issue. The RMA number must be clearly displayed on all shipping labels.





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